FLEET OWNER

McGRAW-HILL MAGAZINE OF FLEET OPERATIONS

JANUARY 1959
50 CENTS

CLOSED CIRCUIT TV

Another operational tool for progressive fleet management p60

FASTER, MORE DEPENDABLE,
COMPLETE ALEMITE FLEET SERVICE

keeps them rolling at lower cost!

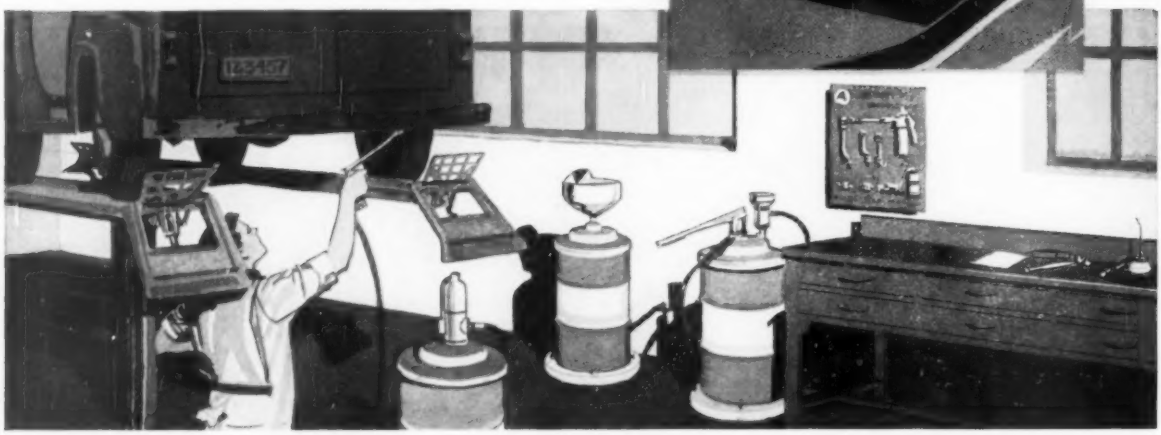
Alemite can show you, right in your own shop or yard, how you can cut operating cost with faster, more dependable fleet maintenance equipment.

Alemite offers the industry's broadest line of lubrication service equipment to meet any fleet service need—equipment that brings *proven* savings in repairs, maintenance and downtime!

Depend on Alemite for complete modernization of your shop—for everything from fittings to hand guns . . . from full banks of overhead reels and pit installations to high-pressure pumps.

Only Alemite offers this unmatched protection *in writing:* (1) a 27-month "Sealed-In Air Motor" warranty (2) a 12-month Equipment Warranty (3) a 12-month warranty on high-pressure hose.

A trained Alemite representative will gladly help you plan a modern lubrication department that is tailor-made for you. Let him show you what *keeps them rolling at lower cost*—soon!



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CORPORATION

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or write for full details today!

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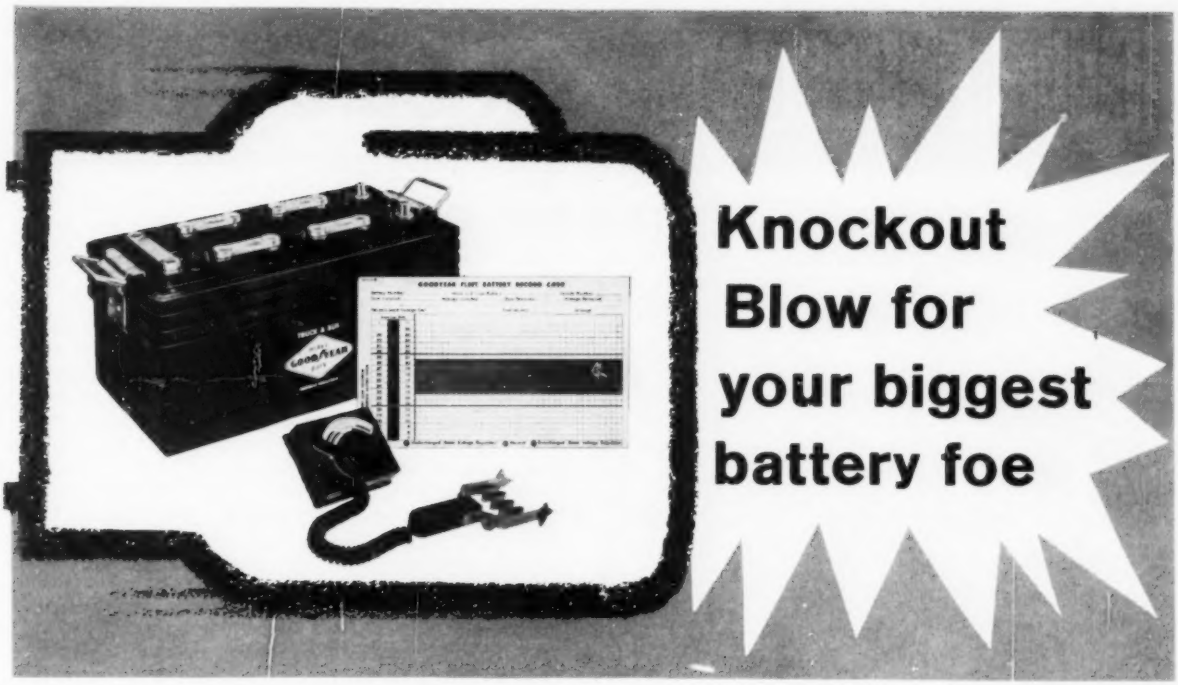


Goodyear's Fleet Battery Maintenance Plan smashes rising battery costs

Every battery has to go sometime. But *premature* battery failure is a needless expense that's now easy to avoid — thanks to Goodyear's Fleet Battery Maintenance Plan.

The Plan effectively curbs a battery's biggest enemy — *improper voltage regulation*. Yet, it doesn't cost you a cent!

Here's how it works. At each watering, batteries are load-tested with the Goodyear All-Purpose Tester (above) for state of charge — and all findings are recorded on a Fleet Battery Record Card — one for each battery.

Whenever findings depart significantly from the heavy green stripe on the Record Card, you know voltage is too high or too low and needs prompt adjustment.

You enjoy longer battery life, longer electrical system service, fewer road delays — and all by spending less than two minutes a week per battery. What's more, the savings continue to grow when you use this Plan with Goodyear Heavy-Duty Truck and Bus or Diesel-type batteries.

So why not do what so many big fleet operators are doing — adopt Goodyear's Fleet Battery Maintenance Plan. For the whole story, mail the coupon today.

Goodyear, Battery Department, Akron 16, Ohio.

GOODYEAR

THE GREATEST NAME IN RUBBER

SEND FOR FREE MONEYSAVING BOOKLET NOW!

THE GOODYEAR TIRE & RUBBER COMPANY
Battery Sales Dept., Akron 16, Ohio

Please send me a copy of the Goodyear Fleet Battery Maintenance Manual.

Name .....

Firm .....

Street Address .....

City ..... Zone ..... State .....

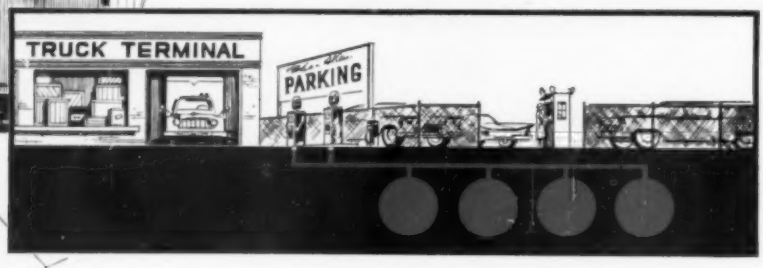
Number of Trucks in Fleet .....

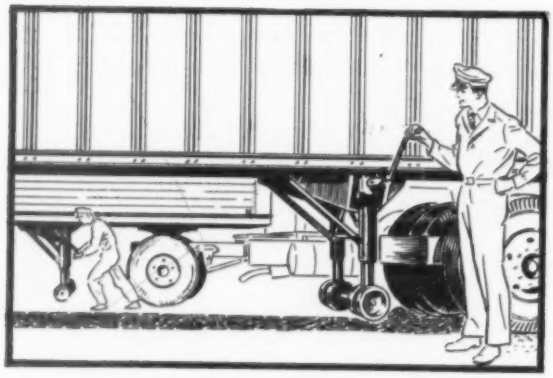
LUBE LOGIC SIX Sure-money

STORE FUEL UNDER THE LOT NEXT DOOR

Lack of space for underground tanks was cutting off a midwest fleet operator from the advantages of bulk fuel storage. There just wasn't room on his own real estate to sink tanks. He and his TAE* were kicking the problem around when they both happened to notice the lot next door . . . a parking lot. The solution to the problem hit them both at the same instant. No time was lost. They cornered the parking lot owner, sold him a deal, made him the first parking lot operator to collect parking fees for a space six feet under.

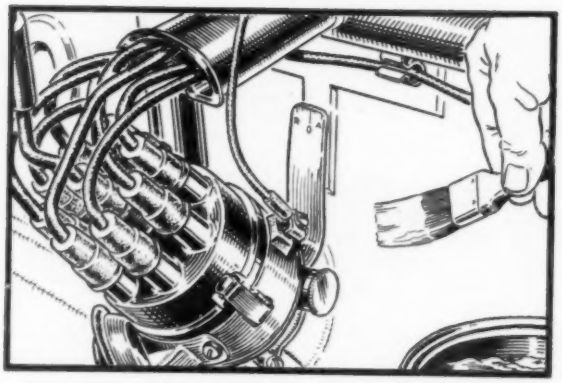
Excavation was timed for a slack period. What losses the lot did incur were negotiated. It didn't amount to much. Tanks were sunk and black top replaced. Even the space lines were repainted. Now the parking lot gets a parking fee from two spaces . . . and the fleet operator has all the bulk storage he needs. Take a tip if you've got a similar problem . . . and get friendly with your neighbors.





END DOLLY DRUDGERY

Do cold mornings bring on a rash of sore sacroiliacs and delayed departures in your dock? Chances are dolly drudgery is doing it. Old-fashioned liniment won't cure it . . . neither will an old-fashioned grease. But TAEs*, all over the country, are cutting hours off hitch-up time with an answer that costs less than the price of a light lunch. Call yours and see.



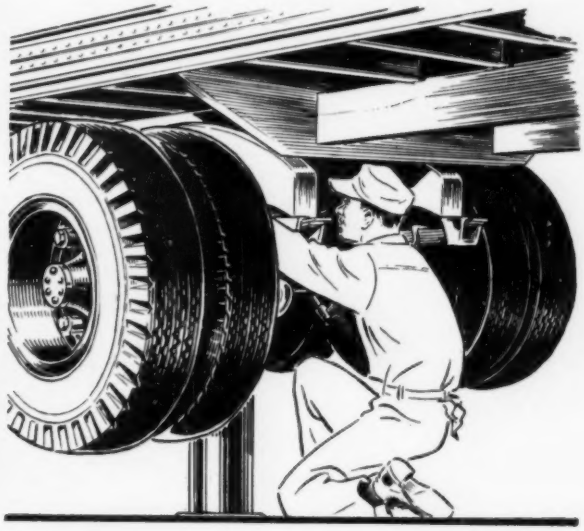
WATERPROOFED IGNITION MAKES STARTING EASIER

Are your batteries showing the strain of a heavy foot on the starter on damp days? Get your TAE* to show you how to waterproof ignitions with Texaco Rustproof L. It's a simple, five minute job that pays off with months of faster starts.

"SLEEPERS" you may be missing!

CORRODED SOCKETS SOLVED

If corroded sockets force you to change taillight bulbs with a light mallet and a pair of duck-nosed pliers, listen to this: put a drop or two of Texaco Rustproof L on the base when you install a new bulb. It will come out as easy as a highway patrolman's summons book . . . even after six months. The cleaner contacts you get might double bulb life, too.



WHY SLIDING TANDEMS STICK

We'll probably get some arguments on this one, but the theory has proved successful too many times to be wrong. It's not cold weather and stiffened greases that cause sliding tandems to stick. It's corrosion from mud and slush and sleet. Last winter, a lot of doubtful operators paid for the doughnuts and coffee when TAEs* bet them that Texaco Rustproof L would solve this problem. If you're in the mood for a little friendly argument, challenge your local TAE on this.

TRUCK RECORD FOLDER

A sturdy manila folder has been designed to help you record vital facts on mileage, oil changes, lubrications, tire life, batteries, etc. Tell your local Texaco representative how many you need; or, write direct.

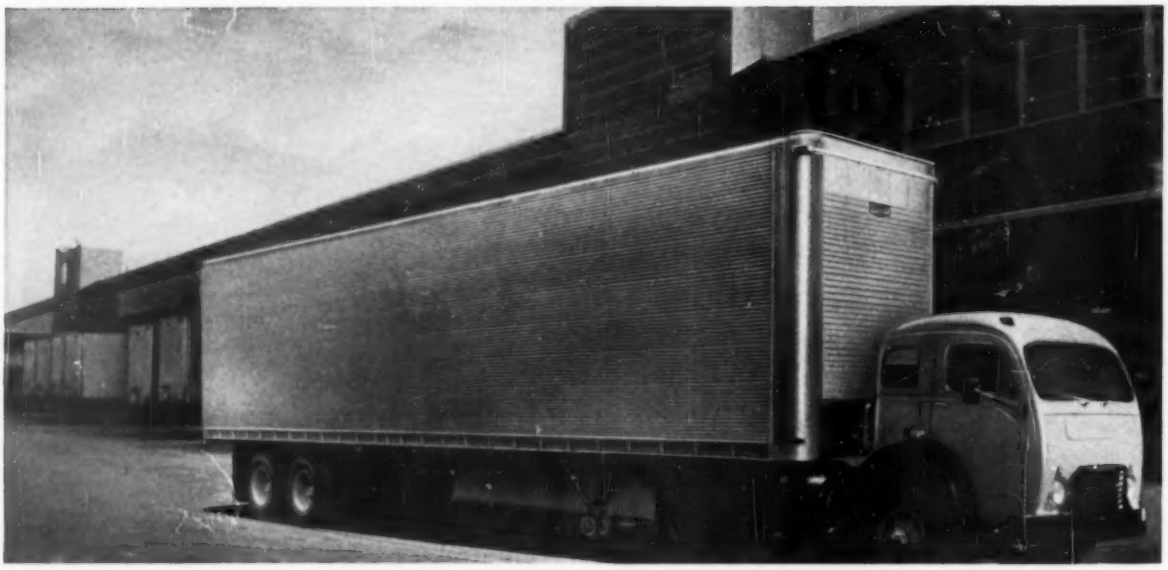
*TEXACO AUTOMOTIVE ENGINEERS

Every month we'll bring you a batch of "sleepers," little angles, so easy to overlook, where big savings in money and time can be made. But month in and month out, your local TAE is the best source of money-saving lubrication ideas. Don't forget that "Lubrication is a major factor in cost control." The Texas Company, 135 East 42nd Street, New York 17, N. Y., Dept. CCJ-10.

TUNE IN... Metropolitan Opera Radio Broadcasts Every Saturday Afternoon

NEW FRUEHAUF STAINLESS

has lifetime toughness built in!



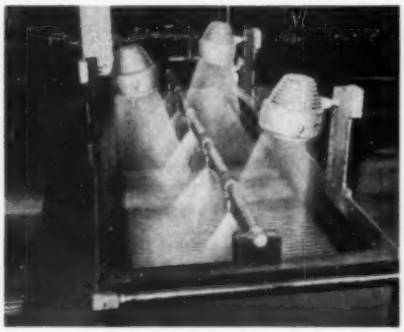
The new 40′ straight-frame Lifetime Stainless Volume☆Van.

Corrosion-proof materials.
Handsome, gleaming appearance.
High advertising value.
Ruggedly built sides.
Machine-welded corrugations.
Rugged, hat-shaped side posts.
Torture-tested, water-proof roof.
Rugged, hat-shaped roof bows.

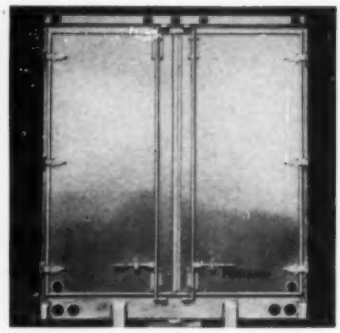
Weathertight body.
Weathertight "plymetal" doors.
High-volume design.
Extremely light weight.
Nearly square inside corners.
Extra wide rear opening.
Low-silhouette coupler optional.
Lubrication-free tandem.

Protected I.C.C. lighting.
Interchangeable Fruehauf parts.
Low upkeep factor.
Easy-to-repair design.
Unlimited life expectancy.
Permanent earning power.
High resale value.
Convenient leases available.

Rugged, hat-shaped side posts.



Torture-tested, water-proof roof.



Weathertight "plymetal" doors.

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STORIES TO WATCH FOR IN **FLEET OWNER** JANUARY 1959

Planning— For new labor and equipment developments

Will New Teamster Membership Drive Work? 22
There are good reasons for thinking Hoffa's organizers are due for a setback. Here's how experts see it.

Road Tax Battle–How the Sides Line Up 26
Brief Reports brings you another rundown on a wide assortment of fast-reading items you need to know about.

Here's What Detriot Plans for This Year 32
There will be more attention given to engine economy, plus new angles on maintenance in the cars you'll be seeing.

Chassis Lubrication Is on the Way Out 36
And one of the first vehicles to feature this radically new development will be a "Big Three" small car.

Can a Heart Disease Victim Work as Driver? 40
In some cases, definitely, says Dr. Brandaleone. And he tells what you, as an operator, should watch out for.

Planning— For new trends in business

Economic Outlook: Your Business in 1959 57
McGraw-Hill's economics experts got together with FLEET OWNER's editors to chart the course for transportation during the coming months. These hard facts will help you in your planning for changed conditions ahead.

Planning— For new methods of supervision

Closed-Circuit Television Comes to Trucking 60
The first installation of its kind is proving itself right now in a fast-action loading operation—and its' not as costly as you might think. Actually, it's inexpensive when you consider the benefits this fleet is reaping.

Interview: Detroit Diesel's New Engine Line 62
A completely new batch of engines is challenging the big leaders in diesel making. FLEET OWNER's Holger Ridder got the story on what they offer from top officials.

What Makes Dana's New Transmission Tick? 66
Recently announced as available in all the new Diamond T vehicles, this device promises to be a big driver saver.

Special Report: Guide to Spray Painting 69
For the first time, a fleet magazine has gathered together all the important facts on expert spray painting. Tells you step-by-step how to prepare surfaces, how to use the gun, how to diagnose and cure your painting problems.

For more contents turn to next page

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FLEET OWNER
JANUARY, 1959 • VOL. 54, NO. 1

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'59 Color Awards Contest: How Your Fleet Can Gain **93**
Last year proved out this new competition. Winning operators have told FLEET OWNER there are big payoffs in being a winner. Here's how to get your fleet in the running.

What Shape Will Future Passenger Cars Take? **99**
Detroit's in the midst of a big style hassle that could leave you in the cold when it comes to resales. You'll want to know how the lines of battle are drawn, what possibilities designers see for coming years.

New In-Tank Electric Fuel Pump **161**
Now available as a replacement pump, it's said to do away with many of those cold-start and "starvation" problems.

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Watch for these stories in up-coming issues

How to test your fuel pumps. Here are the facts on testing both diesel and gasoline pumps. In pictures, you'll see how the experts perform these jobs, step-by-step. These methods in your shop could go a long way toward cutting your problems with breakdowns and road calls.

Interviews to give you the facts on new developments. There will be more coming. FLEET OWNER already has five interviews set up with top manufacturers who are readying new equipment. We'll ask the questions you want answers to.

Cameras—What they can do to improve your fleet. In cooperation with experts in the photographic field, FLEET OWNER is preparing a complete study on what you can do to spot inefficient practices with a camera—in loading, in the shop, and everywhere in your operation.

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Faster steering and quicker recovery for cornering . . . **slower** steering and greater stability for straight-ahead handling! These are the twin benefits of **variable-ratio** steering, originated and developed by Ross. Steering specialists since 1906, Ross provides the right gear for every steering need—manual or power, constant or variable ratio. Ross invites *your* steering inquiry.

Variable ratio 12:20:12 . . . 12 to 1 ratio for cornering and 20 to 1 for straight ahead handling . . . 3 turns of wheel from lock to lock.

Constant ratio 22:22:22 . . . 22 to 1 ratio for cornering and 22 to 1 for straight ahead handling . . . 5 turns of wheel from lock to lock.

ROSS GEAR AND TOOL COMPANY, INC.
LAFAYETTE, INDIANA
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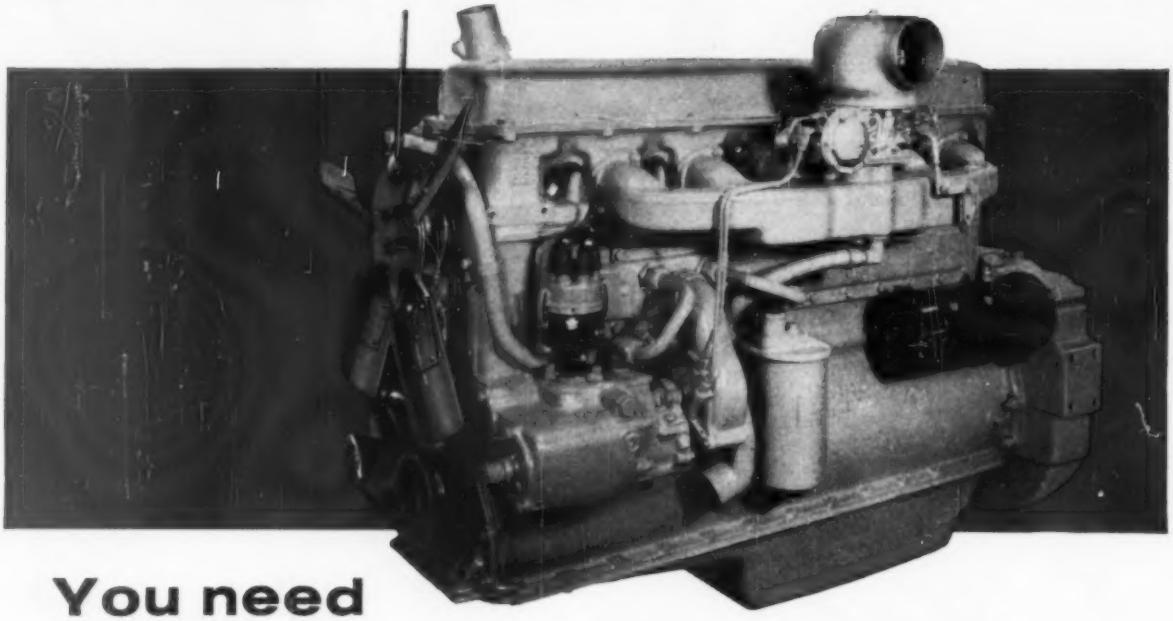
If you want more ton-miles per engine dollar



You need

HALL-SCOTT

When you buy an engine, you're buying horsepower, not iron. And dollar for dollar, Hall-Scott truck engines deliver *more* horsepower, *longer*, than any other truck engine!

Hall-Scott engines are in a class by themselves. They give the highest horsepower per pound of any truck engine—yet deliver this power with a conservative compression ratio and a sensible speed rating, important to long engine life. And Hall-Scott performance must be seen to be believed! Hall-Scott powered trucks will walk away from any other rig, on the open road or in traffic. Users have told us that Hall-Scott engines cut their run time on some routes by 30%! Add the simplified maintenance made possible by the Hall-Scott overhead camshaft and the fact that many Hall-Scott's have compiled million-mile records and you get one answer—real engine economy.

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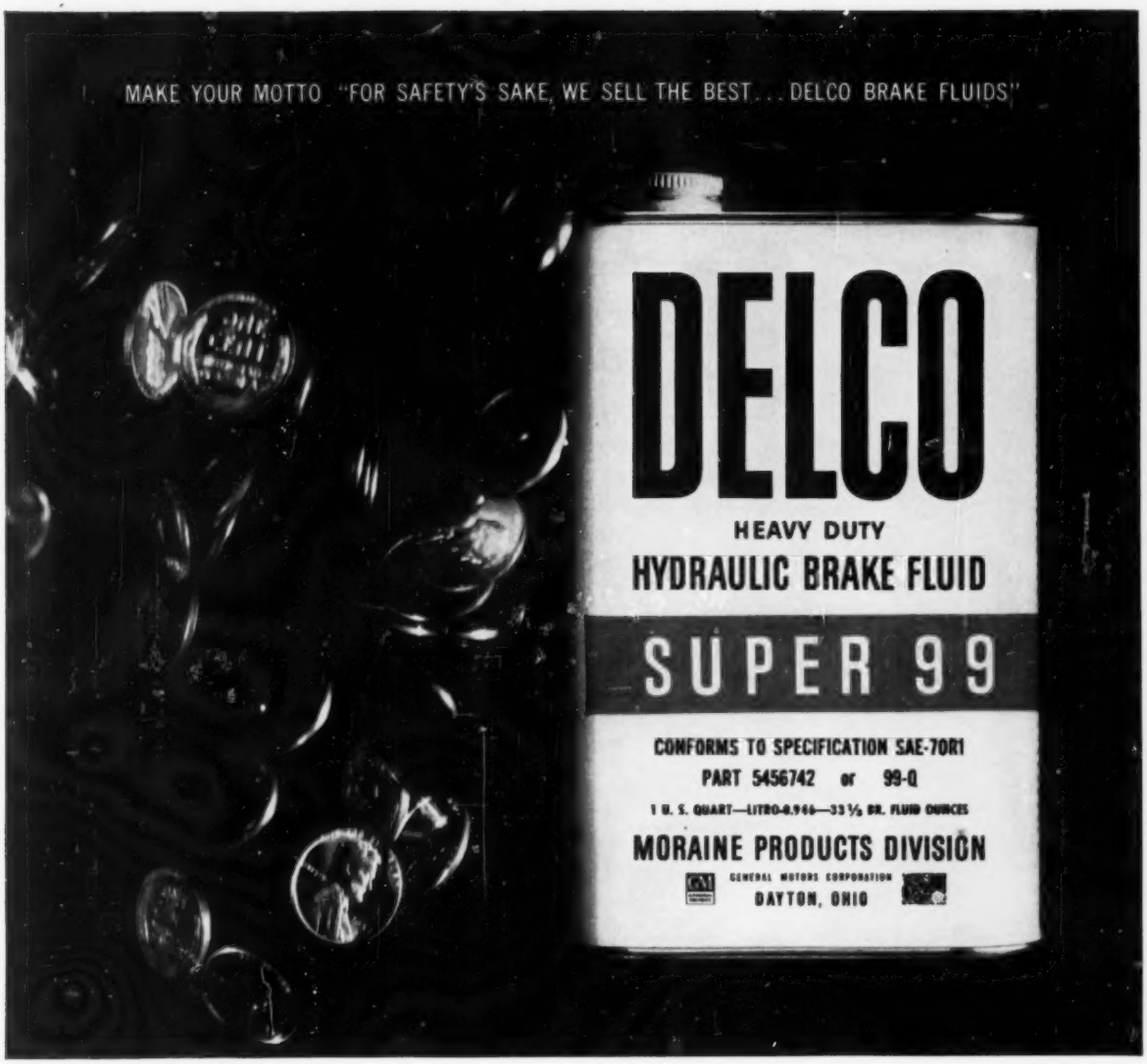
Canton, Ohio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Order your stock of Super 99 and watch your sales soar. Available in sizes ranging from 12-oz. to 54-gallon drums through the United Motors System or through Chevrolet.

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Automotive Progress

Moraine Products
Division of General Motors, Dayton, Ohio

"FORD HEAVIES SAVE US 14% ON GAS ALONE!"

says Francis F. Gitchell
Francis F. Gitchell Company
Binghamton, New York

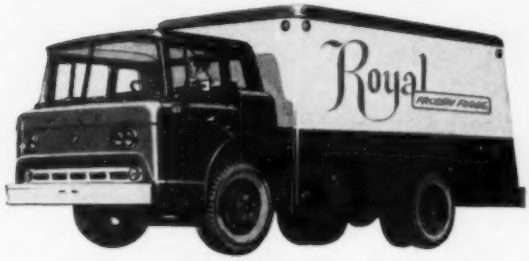
"For example, our Ford F-700 averages over 9 miles per gallon of gas. That's a saving of 14% over other trucks we run . . . with the same loads and over the same routes. And our savings don't stop here. Fords use less oil. We seldom, if ever, have to add oil between changes.

"Ford trucks cost less for maintenance, too! We just dropped a new short block in a Ford after 140,000 miles. In only 4½ hours three men had it changed and the truck on the road earning for us.

"My drivers say, 'Ford Heavies handle like a car compared with other trucks,' and they sure like the comfort and convenience of Ford's *Custom* Cab.

"Because of the good experience we've had with our 5 Fords, we're ordering a '59 F-850 with the new Super Duty V-8."

Go Ford-ward for savings with '59 Ford Trucks!



Whatever your job . . . wherever you do it—you'll find Ford Heavies and Extra Heavies are engineered and built to do it better! Whether your job calls for conventional models, like the Gitchell Co. tractors, or a C-550 Tilt Cab truck as shown here . . . you'll be *ahead* with a Ford. And the '59 improvements in these models will bring still more benefits to your operation.

Greater operating economy with new, faster rear axle ratios and wider choice of transmissions.

More efficient parking brake of the internal expanding type has approximately 50% greater stopping and holding ability, requires less than half the operating effort needed for the previously used type.

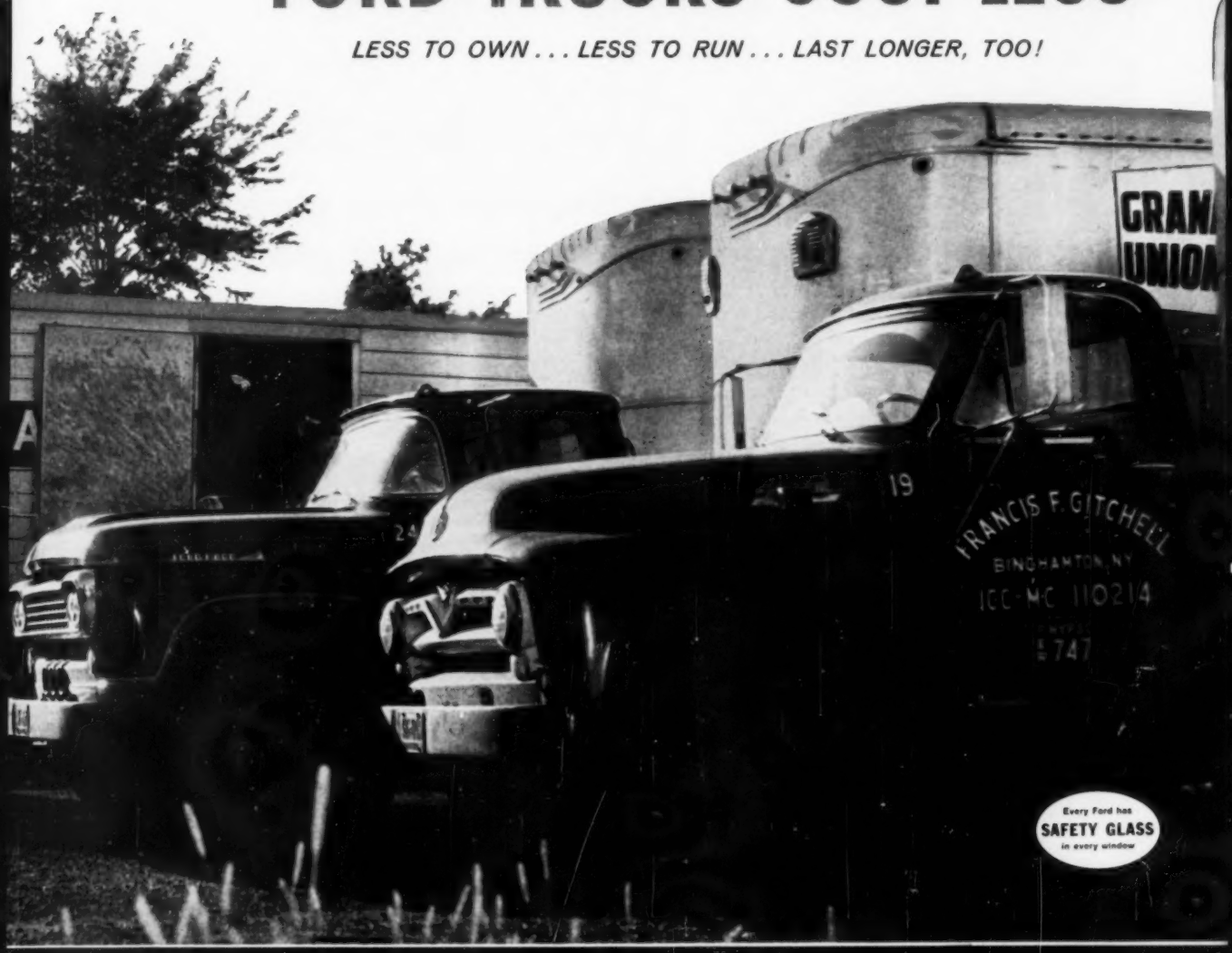
Increased payloads and longer axle life with new, higher-capacity front and rear axle options.

Factory installed tractor package custom-fitted to Ford trucks for safer, more dependable braking.

Yes, the new '59 Ford trucks are here to take you *Ford*-ward for savings, *Ford*-ward for modern style and stamina. See your Ford Dealer today!

FORD TRUCKS COST LESS

LESS TO OWN . . . LESS TO RUN . . . LAST LONGER, TOO!



B.F.Goodrich

B.F.Goodrich Traction Express tires give fleet operator 50% more mileage than any other make

MEYER'S BAKERY of Blytheville, Ark., ships its products to the north-central states. Fifteen tractor-trailers do the job, traveling 16 hours a day, 7 days a week. Dependability and extra mileage were two things this company needed from a tire, so they tried the B.F.Goodrich Traction Express. Read what Manager R. H. Watson writes:

"Traction Express tires give us 50% more mileage than tires previously used. Road delays due to tire trouble have been reduced 20%. We plan to make all our replacements with B.F.Goodrich tires, because they mean 'many dollars saved'."

The Traction Express tread is up to 33% thicker than that of a regular tire. Husky cleats take a non-slip grip on pavement. Under the tread is the B.F.Goodrich FLEX-RITE NYLON cord body. FLEX-RITE NYLON withstands double the impact of ordinary cord materials, resists heat blowouts and flex breaks. No wonder this B.F.Goodrich cord body outwears even an extra-thick tread, can be retreaded over and over.

Truck operators call the Traction Express "the 100,000-mile tire". Why not see your B.F.Goodrich Smileage dealer today and find out how the Traction Express will give you lowest cost per mile. Your dealer is listed under Tires in the Yellow Pages of your phone book. *B.F.Goodrich Tire Co., A Division of The B.F.Goodrich Co., Akron 18, Ohio.*

Specify B.F.Goodrich Tubeless or tube-type tires when ordering new equipment

Smileage!

B.F.Goodrich *truck tires*

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January's Story Behind the Story

Why Plan Stories 18 Months Ahead?

FIRST, BECAUSE WE HAVE to consider editorial balance from issue to issue as well as over a year's period. So, if we don't make an 18-month plan, we might find an issue or a number of issues in a row loaded with stories or reports on the same subject. Then, too, because our readers have varied jobs, we must have balance between stories on maintenance and management subjects.

Second, because research on our 16 and 32-page special reports takes us from eight to 14 months. We try to foresee your problems in advance of the time they become acute and do the research so that we can publish the report at the time you most need it.

Third, because in order to do a good display and writing job in the magazine, we need six weeks to two months. This gives us time to lay out the story for fastest possible reading and distill the writing so it saves you the most time.

Why spend so much time on reports?

Because you can't do a complete job in a much shorter time. Here's why: Once we know there's a need for a special report on a particular subject it takes one month to develop the basic questionnaire on which the report will be made.

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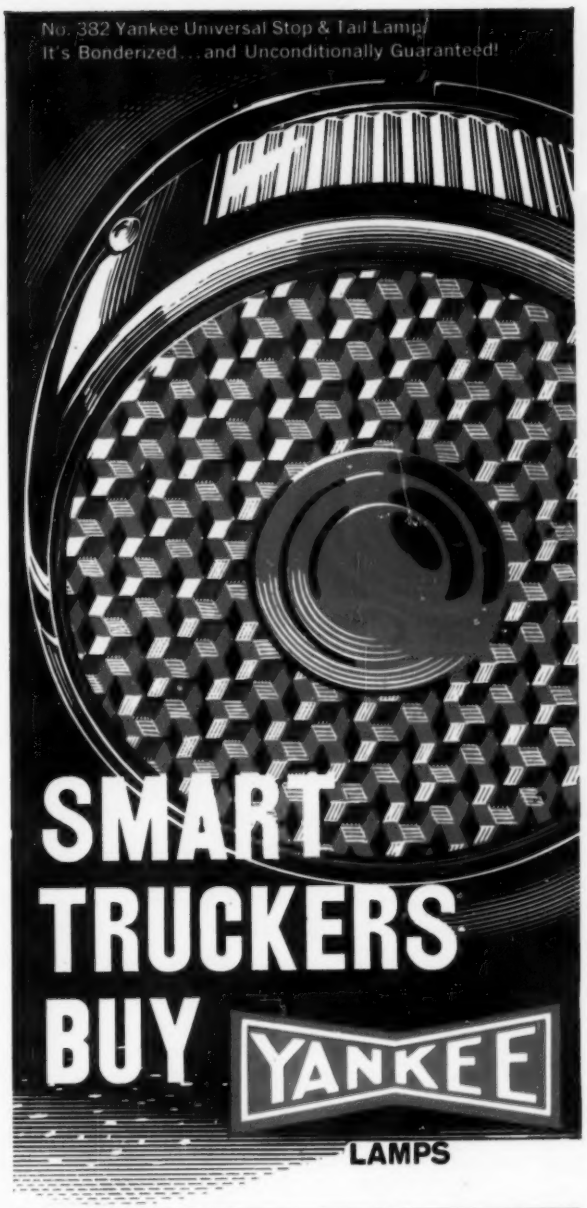
What about last-minute stories?

Your copy of FLEET OWNER reaches you between the fifth and tenth of each month (depending upon the efficiency of your local post office). The last page in the magazine closes the 16th of the preceding month. This means that we can get last-minute articles in the magazine up to 10 days before you get your copy. In the event of a national emergency, we could print the news on a special form and get it into the magazine up to two days before mailing.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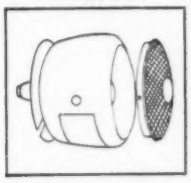
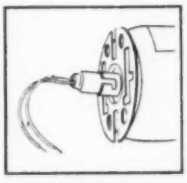


"SNAP-IN LENS"
15-second lens and bulb replacement.



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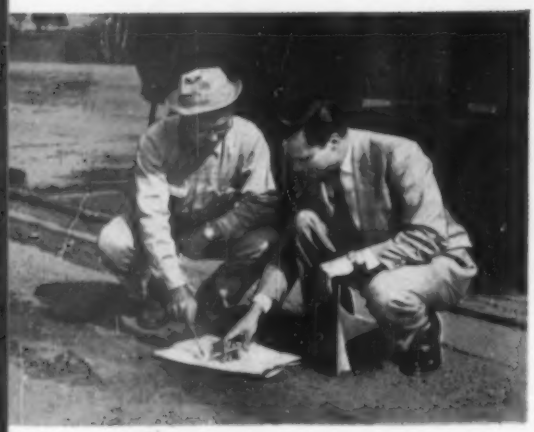
How Standard Oil serves a contractor



This is next. Louis Isabella explains job details to Standard's Jerry Bushman. Isabella's contract covered concrete paving of 26 miles of 24 ft. single lane highway plus interchange connections. When complete, Highway 41 in Wisconsin will be a divided lane freeway.

Case example:

What happened when Isabella Construction got U.S. Highway 41 paving job near Milwaukee

When N. M. Isabella, Inc. set out to put down 26 miles of pavement on U.S. Highway 41, they met Standard Oil's Jerry Bushman, an experienced automotive lubrication specialist. Jerry was ready right then to provide technical assistance on the job.

The contractor next learned about Standard Oil service when two Standard agents went into action. One agent, they found, was based at Slinger, only three miles away. Another agent was located at Allenton, only five miles from the part of 41 to be paved. These agents set up delivery schedules to the job, and meanwhile, Jerry Bushman arranged for fuel storage and pumping equipment.

Isabella put down 363,000 square yards of paving, averaging 1,600 feet of production daily. They got the job done because they were backed by the kind of service they, and their subcontractors, received from Standard.

Standard has 3,900 agents in the 15 Midwest and Rocky Mountain states ready to serve contractors in the same way these two agents served Isabella. Lubrication technical service comes from qualified, trained men located in Standard's 48 district offices. Get this kind of help on your job. Call the Standard office nearby or write to **Standard Oil Company (Indiana), 910 S. Michigan Ave., Chicago 80, Ill.**

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You expect more from STANDARD and you get it!

Standard's Jerry Bushman and Don Isabella wind up some lubrication details. Jerry knows the score when it comes to lubrication of construction equipment. He has a science degree from Marquette plus more than four years' experience in this sort of work. He has also completed the Standard Oil Sales Engineering School course.

new designs...for '59...

TWO GREAT ALUMINUM VANS BY DORSEY

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1 WEIGHT
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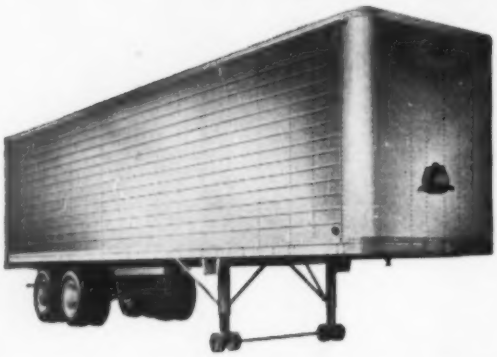
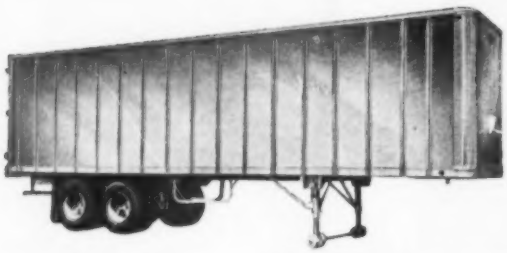


the SATELLITE series

Body construction is entirely of heat-treated alloy aluminum and sides and front are solid-riveted into a fully-stressed Monocoque structure. A wide choice of options enables you to have your Satellites built just the way you want them at a price that will surprise you. Dry freight model (illustrated) weighs only 8,830 lbs in 35-foot model.



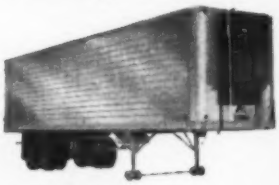
the Vanguard

A new aluminum trailer of true Monocoque construction, the exterior-post Vanguard is designed for operators to whom economy is important, and whose equipment must stand rough treatment. It has the right combination to reduce the cost per-ton-mile for depreciation, maintenance and financing. And this extra tough trailer weighs only 8,675 lbs in 35-foot model!

...and these profit leaders round out Dorsey's complete line

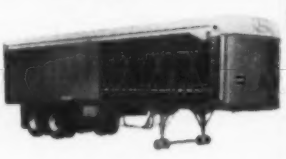
SATELLITE PRODUCE VAN
Features new "Strate Flo Chilling" for maximum produce protection.

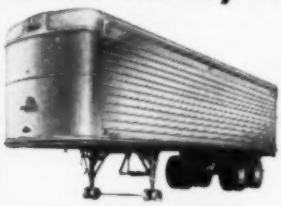
REFRIGERATOR VAN
Satellite Monocoque construction and "assembly line insulation" combine for outstanding performance.



SUPER FURNITURE VAN
2,605 cu ft in 35-foot model. Inside width: 91½". Inside Height: 98-125". Standard Models also available.

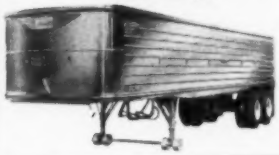
LIVESTOCK VAN
Engineered for maximum livestock protection. Converts easily to dry freight van for profitable backhauls.





CHAMPION VAN LINE
Stressed skin and full X-braced construction. Dry freight, produce and refrigerator models.

GIANT PLATFORM
With its 18" main frame, the Giant is America's No. 1 platform. Weight: 8,280 lbs. (32-foot Model)

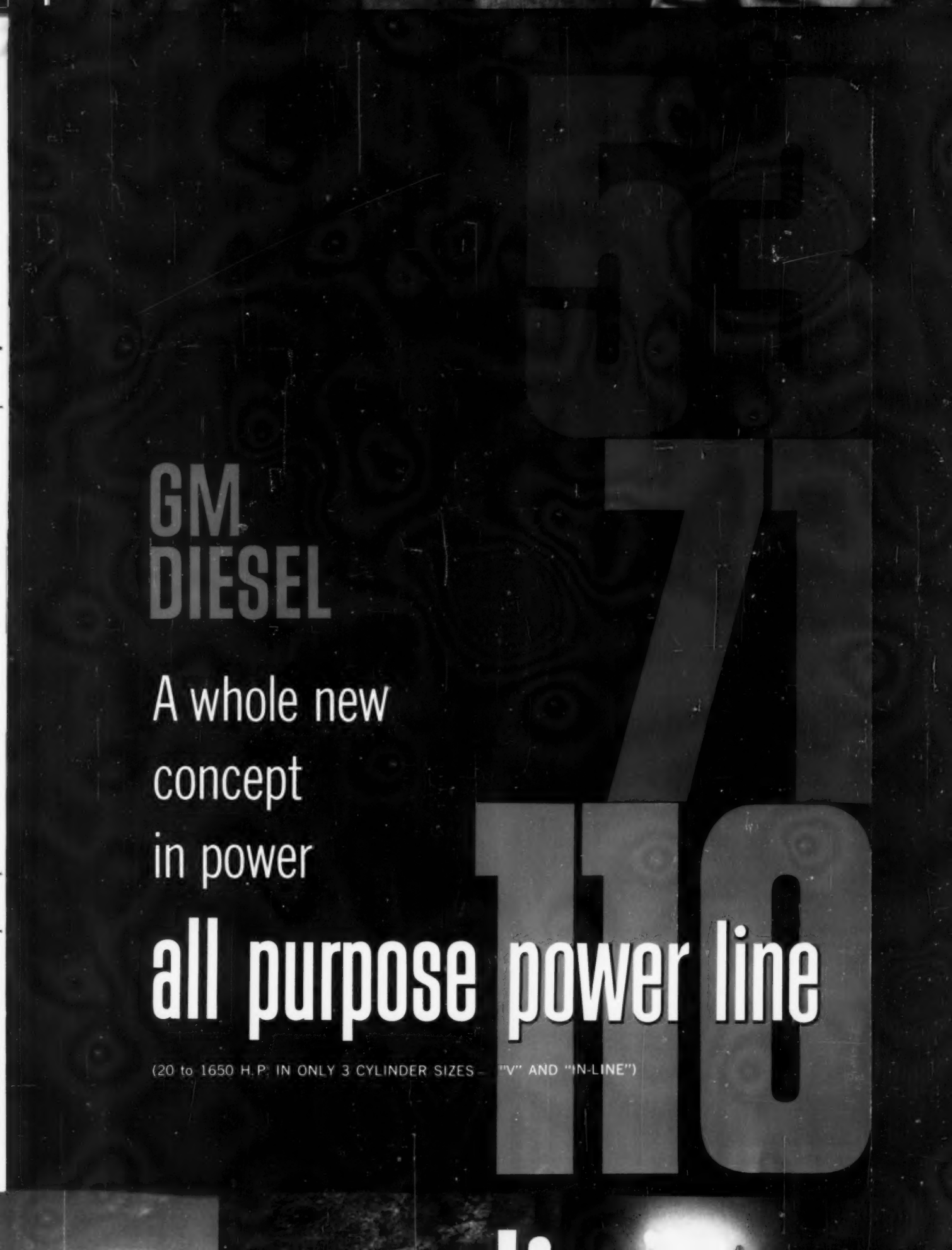


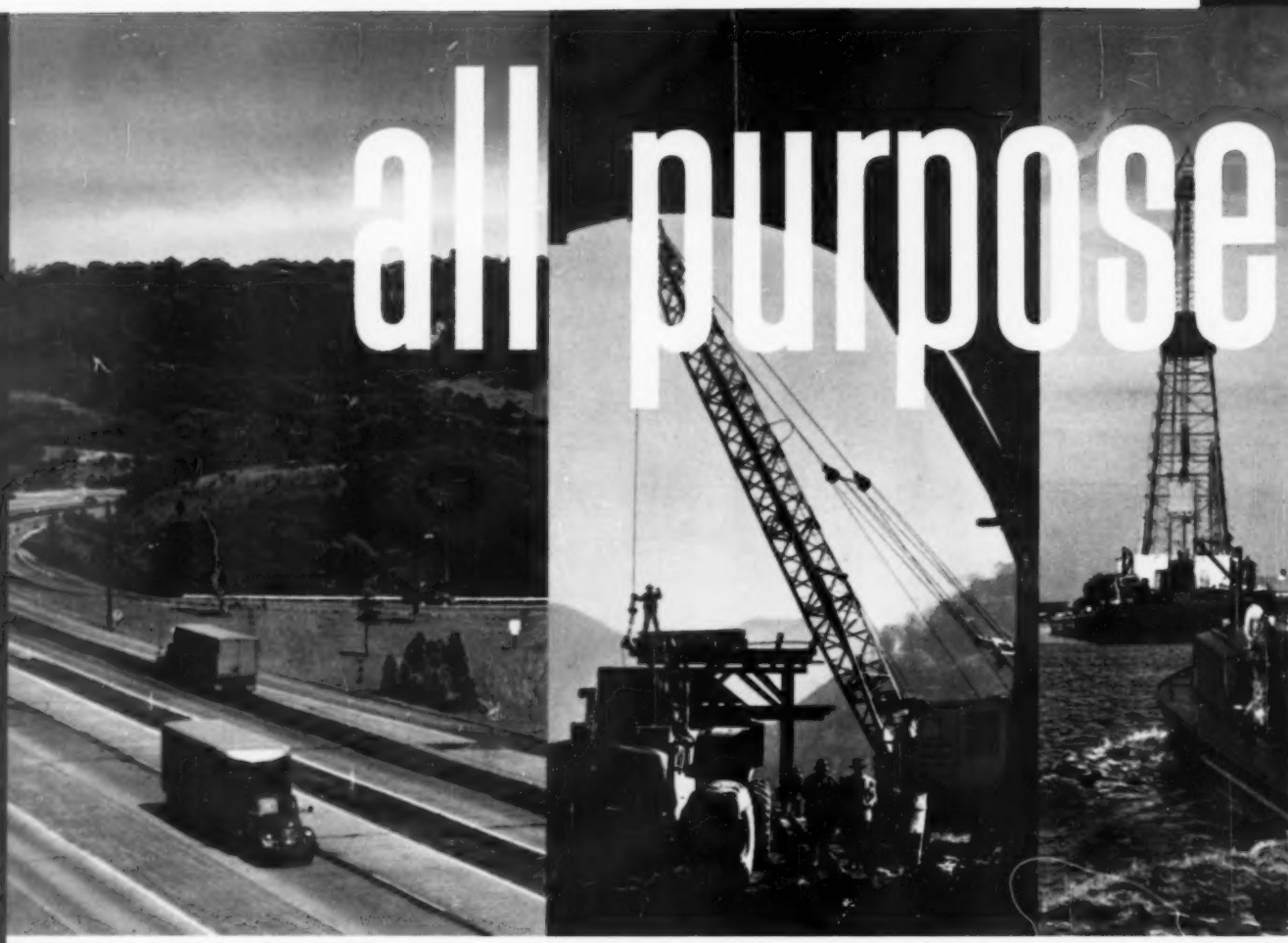
CHAMPION GRAIN TRAILER
Ruggedly engineered for maximum payloads. Bulk Fruit models also available. Weight: 8,500 lbs. (32-foot model).

"HONEST WEIGHT" TAG: Every Dorsey is weighed when it comes off the assembly-line, and its scale weight is stamped on a permanent metal tag which is affixed to the trailer frame.

DORSEY TRAILERS
ELBA, ALABAMA

DORSEY


GM
DIESEL
A whole new
concept
in power
all purpose power line
71
110
(20 to 1650 H.P. IN ONLY 3 CYLINDER SIZES – "V" AND "IN-LINE")



GM Diesel combines 8 New Basic "V" and "in-line" engines with

To help industry fill its power needs, GM Diesel engineers have developed the most comprehensive power concept since they pioneered the small 2-cycle Diesel.

Using only 3 cylinder sizes, they have more than doubled the number of basic engines – vastly increased the horsepower range – yet maintained the family relationship and parts interchangeability for which GM Diesels are famous.

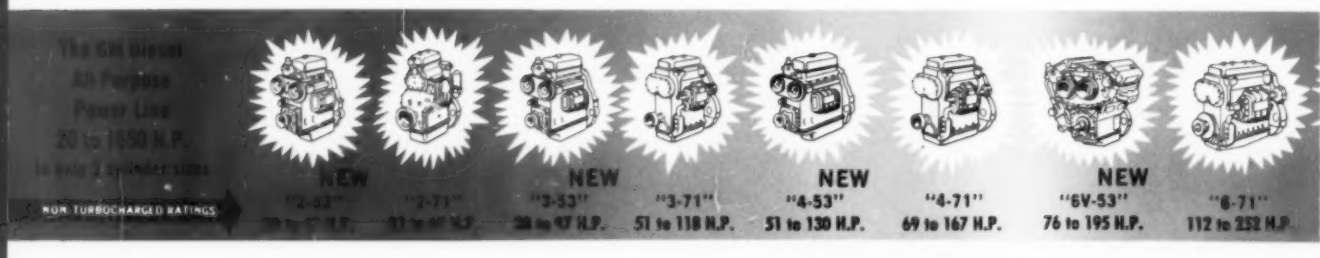
Each engine features the ultimate in *compactness, light weight, high efficiency, durability and inexpensive maintenance.*

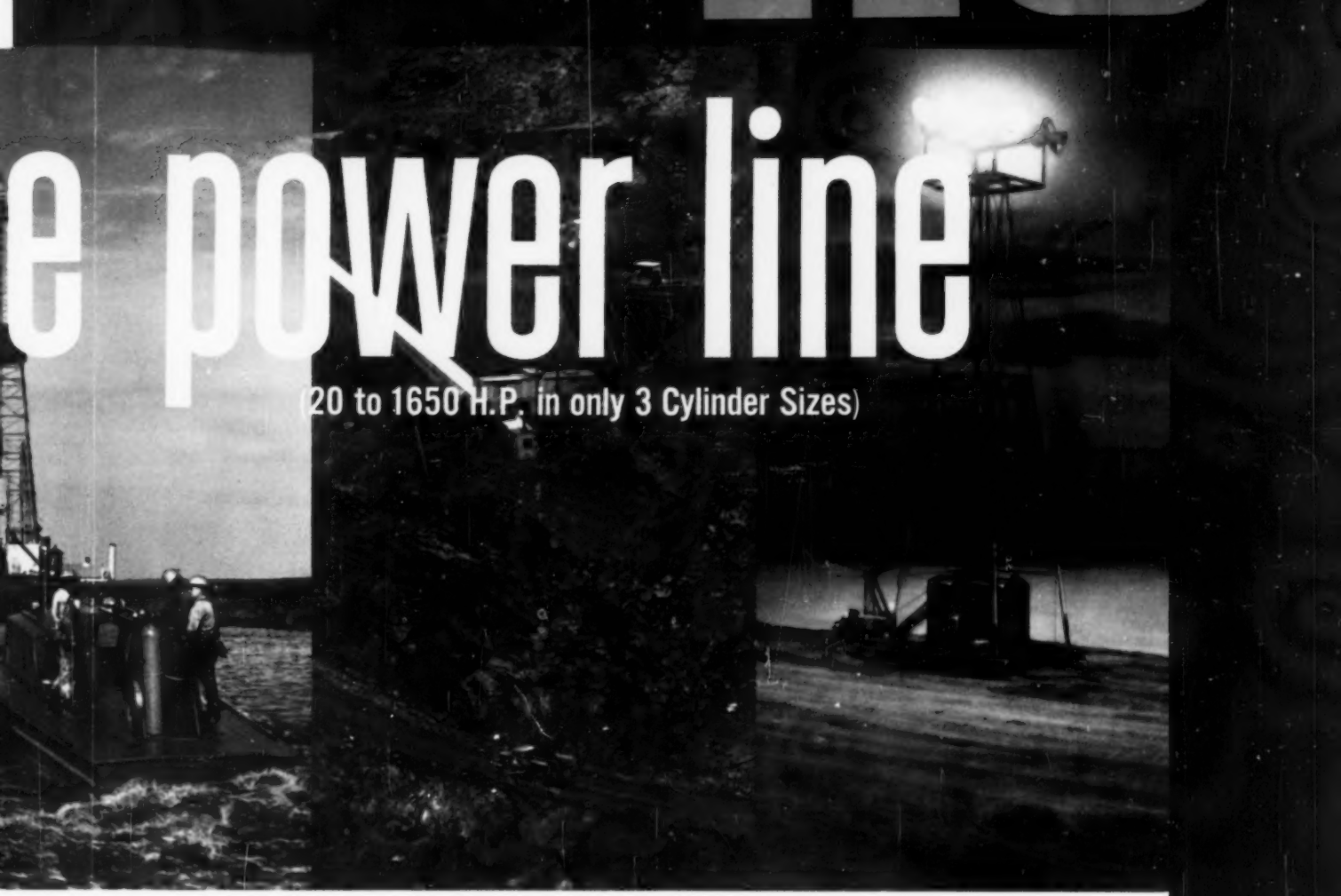
Basing their design on that of the versatile and capable GM Series 71 Diesel, GM Diesel engineers have created 8 new basic "V" and "in-line" engines which will add vastly new power coverage to the present Series 71 and 110.

First, the new Series 53 Diesel—comprising four basic "V" and "in-line" engines—is a smaller, more compact version of the famous "71."

Here, at last, in the Series 53, are Diesels which cover the lower horsepower ranges as never before. They hurdle the barriers which have limited the use of Diesel power in a whole host of applications. They offer new opportunities for Diesel power to farmers, boatowners and industrial users by making available GM Diesels particularly suited to their needs. They will pay for themselves amazingly fast when they take over from gasoline engines.

Four new "V-71" engines complete the additions—widen the power range of the "in-line" 71 Series—set new standards for low weight and small size per horsepower. These "V-71"





e power line

(20 to 1650 H.P. in only 3 Cylinder Sizes)

s with its proved "Jimmy" Diesels

basic "V"
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—widen the
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ese "V-71"

engines bring far more power than ever before possible to the big brutes of the construction, mining, petroleum, logging and marine industries—up to 1650 H. P. when turbocharged.

Production has started and complete programming has been established on all new engines. Non-turbocharged engines will be available first, followed later by Turbopower models to complete the power range.

So—now more than ever before, it pays to standardize on GM Diesel power. For whatever you want a Diesel to do, there's a GM Diesel to do it for you—faster, better, at less cost. Truly, here is a whole new concept in Diesel power—the All-Purpose Power Line. Get the full story by writing GM Diesel, Detroit 28, Michigan.

GM DIESEL

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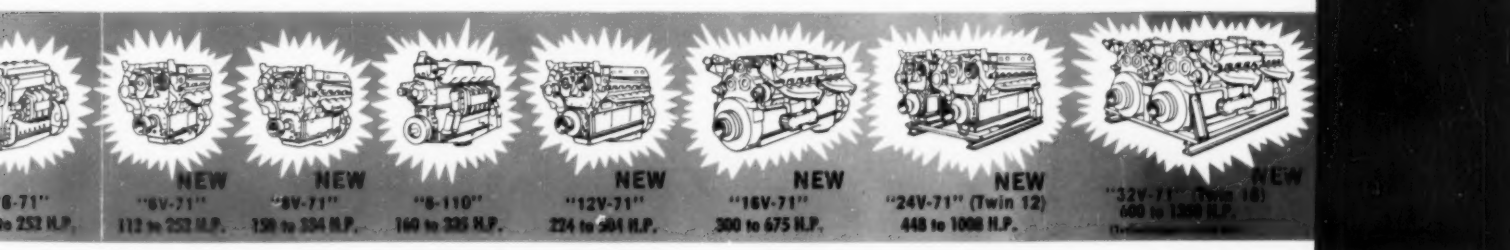


6-71"
to 252 H.P.

NEW
"6V-71"
112 to 252 H.P.

NEW
"8V-71"
150 to 334 H.P.

"8-110"
160 to 335 H.P.

NEW
"12V-71"
224 to 504 H.P.

NEW
"16V-71"
300 to 675 H.P.

NEW
"24V-71" (Twin 12)
448 to 1008 H.P.

NEW
"32V-71" (Twin 16)
600 to 1350 H.P.

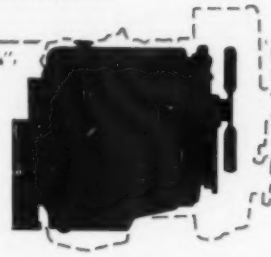
NOW...A "Jimmy" Diesel for every kind and every size of truck, bus or taxi

—and see how new GM Series 53 and "V" engines compare in size with nearest Diesel competitor

NEW SERIES 53 "IN-LINE"

—smaller Diesels millions can use

2-53 ..... 47 H. P. @ 2000 R. P. M.
3-53 ..... 97 H. P. @ 2800 R. P. M.
4-53 ..... 130 H. P. @ 2800 R. P. M.

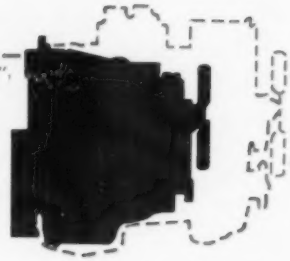


"4-53"—Length 38¹³⁄₁₆", width 26¾", height 33⅛", weight 1040 lbs.

A scaled-down version of the dependable Series 71 GM 2-cycle Diesel—identical in design principles—the new "53" incorporates the time-proven features of patented GM unit fuel injection and uniflow blower scavenging in more compact, lighter-weight units. These spacesaving 2-, 3- and 4-cylinder engines open up new fields of Diesel usefulness in small trucks, buses and taxicabs, as well as in tractors, material-handling equipment and small boats. Put a Series 53 "Jimmy" Diesel to work. It will pay for itself amazingly fast when it takes over from a gasoline engine.

NEW "6V-53"

—for space and weight-savings in shorter over-the-roads units
195 H. P. @ 2800 R. P. M.

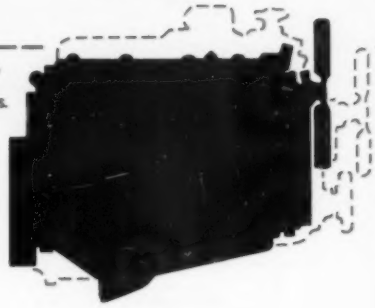


"6V-53"—Length 34⅛", width 31½", height 36¼", weight 1340 lbs.

Essentially two 3-cylinder banks in a "V" block arrangement, the new "6V-53" answers the need for a super-compact 175 to 195 horsepower Diesel for trucks up to 55,000 GCW and 30- to 50-passenger coaches. Only 34⅛" in over-all length and weighing only 6.9 pounds per horsepower (a new low), it features maximum interchangeability of parts with Series 53 "in-line" engines—permits design of new shorter, lightweight Diesel-powered highway hauling units.

SERIES 71E "IN-LINE"

—the proven economy engine of highway hauling
4-71E—145 H. P. @ 2100 R. P. M.
(Turbopower—171 H.P. @ 2300 R. P. M.)
6-71E—217 H. P. @ 2100 R. P. M.
(Turbopower—236 H. P. @ 2100 R. P. M.)

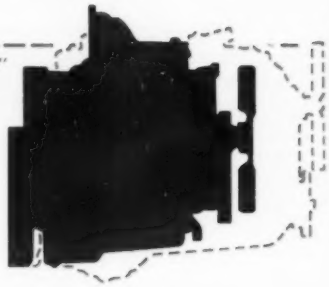


"6-71E"—Length 54¼", width 35⅛", height 49⅛", weight 2080 lbs. Lightweight aluminum version 1670 lbs.

These great "71E" and "71T" "Jimmy" Diesels have proved themselves the most outstanding, most economical performers on the highways—producing the lowest-cost miles in Diesel history. In many fleets these rugged engines deliver up to 7 miles per gallon—as many as 300,000 miles without overhaul. And when overhauls are needed, they cost far less than for other Diesels. Lightweight aluminum version of "6-71E" weighs up to 690 lbs. less than competitors in the 217-h.p. range.

NEW "V-71"

—the only 217 h. p. Diesel that really fits into 48" b. b. c. truck-tractors.
6V-71—217 H. P. @ 2100 R. P. M.
8V-71—290 H. P. @ 2100 R. P. M.



"6V-71"—Length 42⅝", width 35" height 39⅜", weight 1855 lbs.

Over a foot shorter and 200 pounds lighter than "in-line" Diesel sixes of equivalent horsepower, this new GM "6V-71" will inaugurate a new era of efficiency and economy in short-wheel-base C.O.E. tractors. The new "8V-71," producing 290 H.P. without turbo-charging, will "step up the horses" in big logging trucks, on- and off-the-highway operations and large passenger coaches. All of the economy improvements made on Series 71 engines in the past 20 years are incorporated in these new engines. Most parts completely interchangeable between the "V's"—maximum interchangeability with "in-line" Series 71 units.

GM Diesel
Detroit 28, Michigan
Send me detailed information on new GM All-Purpose Power Line for trucks and buses. I am interested in new Series 53 (.....), Series 71E (.....), new "V-71's" (.....).

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Plus **FREE "POWER-VAC"** VACUUM CLEANER

Model 120-RW

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Send for free catalog and details on this unprecedented, tremendous offer! Find out "how" a Choldun TRUCKWASHER, sizes from 30′ to 65′, will help eliminate your fleet-washing problems. And, take advantage of our 10th Anniversary Special!

Note: As an alternate choice, you may select FREE "Auto-Magic" Carwasher, CW400-21, instead of FREE Steam Cleaner and Vacuum Cleaner.

The CHOLDUN MANUFACTURING CORP.
331 East St., New Haven, Conn.

Please send TRUCKWASHER catalog and 10th Anniversary details.

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Why Hoffa's New Drive May Fail

JAMES R. HOFFA'S BIG TEAMSTERS have blown the whistle for another mass organizing drive. The target, this time, is the Sears Roebuck chain of retail stores. The goal is 70,000 employees working in 110 Sears operations in 21 states. These are mainly employees in mail-order houses, warehouses and repair and service units. The program involves all four Teamster conferences, covering the U. S. Manpower to handle the campaign centers around some 200 organizers who will be reassigned to the Sears drive, this month.

All details and some strategy are provided in the public pronouncement from international headquarters. Says union president Hoffa: "The operation will be patterned after the successful Montgomery Ward council" which succeeded in its organizing objectives at the rival mail-order house, causing a national stir.

Coordinator of the drive to organize Sears is Teamster Southern Conference chairman M. W. ("Dusty") Miller, who recently commented: "We are not kidding ourselves. This will be a tough campaign. But the Teamsters have proven their ability to win substantial gains for employees such as those at Sears, and we are confident of success."

If all it took to organize a giant company were a show of confidence, the Teamsters could now begin to add the new members. But, even within the powerful trucking union, the easiest part of any organizing campaign is setting the target. There's no doubt the Hoffa forces hope this step, alone, will help to soften up the opposition. But, just by announcing they're coming, the Teamsters aren't going to make it any easier.

Organizing goals and membership drives in the past may help show what the Teamsters are up against. There's evidence that their goals often run ahead of the results, although they probably have a better score in membership drives than any other union at this time. When the fanfare has died down and the work begins, the goals become more realistic and hundreds take the place of thousands.

Take an important example in another industry, where the Teamster campaign for new members also was much heralded in advance. Two years ago, the Teamsters and the International Association of Machinists signed a joint organizing pact at International headquarters. At the same time each union paid out $100,000 apiece to start it off. They laid out their target—750,000 workers in the automotive field—gas stations, car shops, auto sales agencies and the like.

They divided territories. The Teamsters took jurisdiction over all outside workers, such as pump attendants, car washers and the like. The Machinists took inside territory—mechanics, and so on. International headquarters matched the local unions, organizer-for-organizer, dollar-for-dollar.

Two years later: The goals are all but forgotten. The joint campaign is broken up at international offices. Organizing has slowed down to a walk. The signed-up members are a few thousands, instead of three-quarters of a million. The future of the drive is a question mark.

The two unions had surveyed the prospects for members in 105 cities with populations over 100-thousand. Most of these will escape. Specific target areas such as Cleveland, Dayton and Columbus may never be approached en masse. The entire state of Missouri was on tap.

Poor organizing and low score resulted from this joint effort. A number of factors, unfortunate from the Teamster viewpoint, became bottlenecks. Some were anticipated, some not, but they contributed to the flop. Here's what happened. Among the factors which made the organizing score so low:

- Entering a tough territory for unions. Small plants, small shops are notoriously difficult to organize. Resistance by automotive managers stopped the Teamster-Machinist drive almost cold in some of the cities on the list.
- The breakup of the Teamster-Machinist pact. At the orders of George Meany's AFL-CIO, the Machinists broke off their working agreement with the Teamsters. They closed the joint organizing offices, and of course they pulled back the funds slated for the giant campaign.
- Teamster locals aren't able to pick up the slack in most cases. Where the Teamster-Machinist drive went well, the plan is to continue it locally. But where it failed, the two unions are likely to take to jurisdictional warring.

You can pin point the cities where the organizing efforts will continue. Boston; Erie, Pa.; Portland, Ore.; Jamestown, N. Y.; Long Beach, Calif. Two places it won't show up again—Rochester, N. Y. and Santa Barbara, Calif. It flopped there, though the unions were working together.

Organizing flops and Teamster plans when viewed together help put each in perspective. When the union makes pronouncements about invasion of non-union territories, it is a battle plan. It's not a victory march until the hard work is done. And, for the giant Teamster union, this does not always come about.

NEW Allis-Chalmers 2,000-lb Lift Truck

...a Standout Performer!

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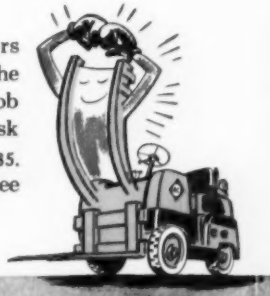
Greater Lugability— from a rugged heavy-duty industrial engine with full 35 hp, 97 ft-lb of torque.

Climbs a 40-percent ramp loaded. Power, traction, plus low center of gravity, add up to gradability that can't be matched.

Greater accessibility— ready for servicing in 22 seconds . . . and can be stripped down to the chassis in 22 minutes. Serviceability like this means many extra hours on the job.

Proven "Years-Ahead" design—means *more* dependable, continuous . . . economical hours on the job.

Ask your Allis-Chalmers dealer to demonstrate the NEW FT20-24 on *your* job under *your* conditions. Ask for the new Bulletin BU-485. Allis-Chalmers, Milwaukee 1, Wisconsin.



BH-82

ALLIS-CHALMERS

"Hefty" the FT 2,000-lb champ Saves you more, Makes you more.

"They treat you fine at the Goodyear Sign!"

—where you'll find the best values in TRUCK TIRES to meet every need of Tonnage, Traction and Terrain—from pickup and panel-truck operations, to the biggest over-the-road haulers and earth-movers. All backed by years of experience . . . all expertly serviced at **GOODYEAR DEALERS'**.

RIB HI-MILER Best buy in the low price field

HI-MILER XTRA GRIP Year-round low-cost super-traction

TRACTION HI-MILER Premium performance at moderate price

HI-MILER CROSS-RIB Shatters highway tread-wear records

Hi-Miler—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

"Even on the Cross-Ribs

Why O.N.C.-SO. CAL. Freight Lines, San Francisco, Cal., has standardized on HI-MILER CROSS-RIB

"Tough runs and tough schedules, from Oregon to the Mexican border—that's us," Company President Carroll J. Roush reports.

"Take the 'Night Beat': 400 mountain-miles, San Francisco to Los Angeles – a run we have to make between dusk and dawn to deliver the goods on schedule.

"It's 1,100 miles (including the Siskiyou Mountains) from Los Angeles to Portland but we make *second morning* deliveries!

"We tackle Donner Pass snows to Reno, Mojave Desert heat to Imperial Valley – and with rigs running 78,600 pounds gross, traction, tread wear and tire-cost-per-mile were real *problems.*

"But Hi-Miler Cross-Ribs have all the right answers.

"Since 1957, they've taken our hottest hauls AND snow and ice. They've licked sideslips and skids—and wear so slowly, so evenly, we never reverse a tire.

"What's more—*Hi-Miler Cross-Ribs give TRIPLE' our former tread-mileage and plenty of recaps, too.* They're the best time- and money-savers ever on our fleet!"

O.N.C.-SO. CAL. is typical of truck owners from coast to coast who are saving BIG with Cross-Rib. Get all the facts from your Goodyear dealer – or Goodyear, Truck Tire Dept., Akron 16, Ohio.

HI-MILER CROSS-RIB EXTRA RUBBER *plus* **TRIPLE-TOUGH 3-T NYLON CORD**

❶ Usual truck tire tread depth. ❷ The HI-MILER CROSS-RIB has 60% thicker non-skid tread! ❸ Even Nylon cord must be tempered to be its toughest. Goodyear's exclusive 3-T process triple-tempers Nylon to make it TRIPLE-TOUGH — for longest tire life, most recaps, lowest cost-per-mile.

TRUCK TIRES by GO

'Night Beat', triple our tread mileage!"

GOODYEAR

MORE TONS ARE HAULED
ON GOODYEAR TRUCK TIRES
THAN ON ANY OTHER KIND

How Road Tax Fight Shapes Up

Influential members of both Houses line up with opponents of higher highway-use taxes . . . Plus news about fuel tax relief granted to D.C. Transit . . . Air pollution report . . . Factory discounts to government fleets.

HIGHER ROAD TAXES, proposed by the Bureau of the Budget, are already meeting stiff opposition from several congressmen—among them: Sen. Dennis Chavez (D-N.M.), chairman of the Senate Public Works Committee; Senator Albert Gore (D-Tenn.), chairman of the Senate Roads Subcommittee; Sen. Wm. Langer, (R-N.D.); Rep. Hale Boggs (D-La.), chairman of the House Ways and Means Subcommittee which handles highway revenue measures; Rep. James C. Auchincloss (R-N.J.), minority member of the House Public Works Committee. Speaking at the annual meeting of the AASHO, Senator Gore said: "All of us are highway users whether we drive or not. There is a real question as to whether we should make the highway improvement program dependent solely on revenue from highway user taxes. We must find better, more equitable ways to accomplish our improvement goals."

■

Discontinued factory discounts to government fleets are arousing state and local officials. Michigan, for example, figures it'll have to pay over $500 more per car, and debates cancelling proposed purchases of several hundred '59's. The Federal government still gets the factory discount but lesser governments are now in the same boat as private and common carrier fleets—they must dicker with dealers for any bargains.

■

Financial news is made on two fronts by D. C. Transit System, Washington, D. C.

Fuel tax relief of more than $360,000 has been granted the company by the District Public Service Commission. D. C. Transit's franchise provides for the exemption when net operating income is less than 6½%, and the company got a similar dispensation covering 1957, its first year in business. A rate base set by the commission is used in figuring the return, and PUC rejected company claims that gross income should be used instead. D. C. Transit may take this issue to court or to Congress.

Plans to split D. C. common stock 1000 to 1 have also been announced. The company looks toward eventual public ownership of some of the shares. Of the outstanding common shares 5000 are owned by T.C.A. Investing Corp., which in turn is owned by Trans Caribbean Airways. Under the split, each outstanding $100 par common share would be entitled to 200 10-cent par shares of new Class A stock, and 800 shares of new Class B 10-cent par common.

■

Air pollution is five times greater in cities than rural areas, according to reports from the U.S. Public Health Service at the First National Conference on Air Pollution in Washington, D.C. Conferees laid the major blame on automotive exhaust. One speaker, typical of the mood of the conference, demanded to know when auto and truck manufacturers are going to "turn from the foolishness of fins, oversized models, and too much horsepower, to the essential but tough job of controlling the exhaust problem."

In reply, Harry W. Williams, managing director of the Automobile Manufacturers Assn., pointed out that U.S. auto makers have spent $1-million a year for the past five years, in research which is revealing important new information about exhaust gases and control devices.

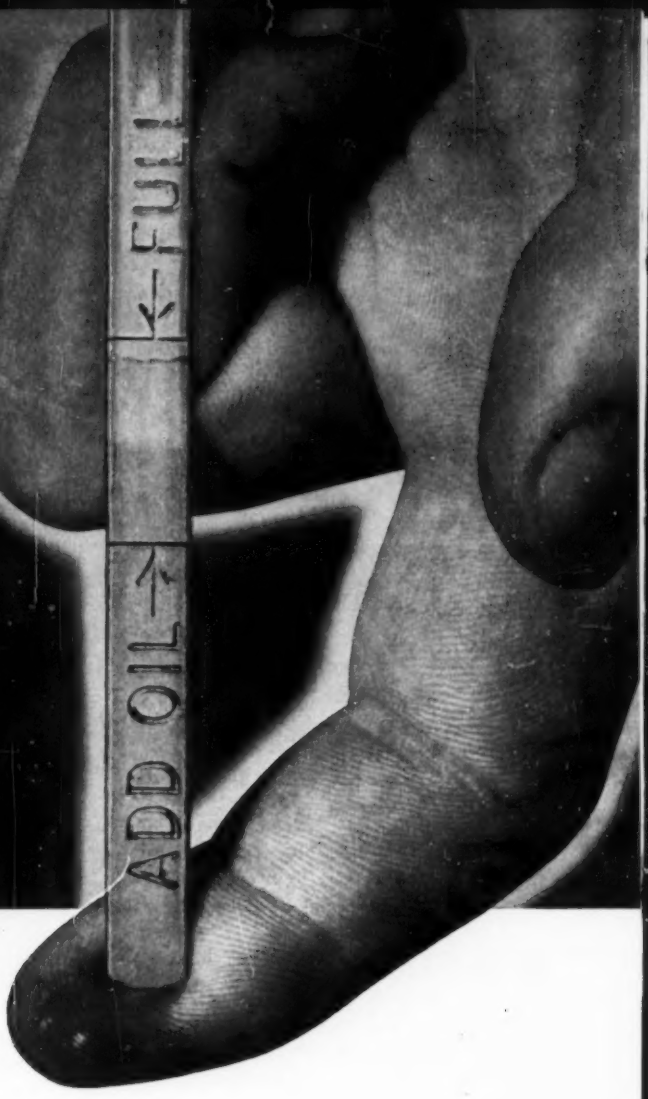
■

150,000 vehicle-miles a year will soon be the aim of many over-road and private haulers, according to J. N. Bauman, president of White Motor Co. Speaking to trade-press editors in Cleveland recently, he said round-the-clock operation might be necessary to keep costs down and amortize more quickly. As a result, he predicted a greater emphasis on maintenance accessibility, sleeper cabs,—and driver features such as air-conditioning, which has seen rapid growth in the past year and is becoming a "fringe demand" in some union contracts.

■

New Soviet trolley bus accommodates 200 passengers. According to Izvestia, the power bus and trailer are articulated construction, allowing pasengers to move freely from one unit to the other. The bus will be air conditioned. Its four entries and three exits will be equipped with pneumatically operated doors.

NOW! DIPSTICK PROOF that...



HASTINGS keeps oil clean

Hastings *keeps* oil clean from filter change to filter change* —and you can prove it to yourself! Dipsticks from engines with ordinary oil filters may show dirty oil after fewer miles than you think. BUT oil shows clean on the dipstick of an engine with a Hastings Oil Filter Cartridge—right up to recommended filter replacement time.

The difference is DENSITE, an entirely different filtering material. Millions upon millions of selected, pressure-packed cotton fibres absorb dirt far beyond the capacity of ordinary filters. This is important—because dirt is an abrasive, and abrasives cause wear.

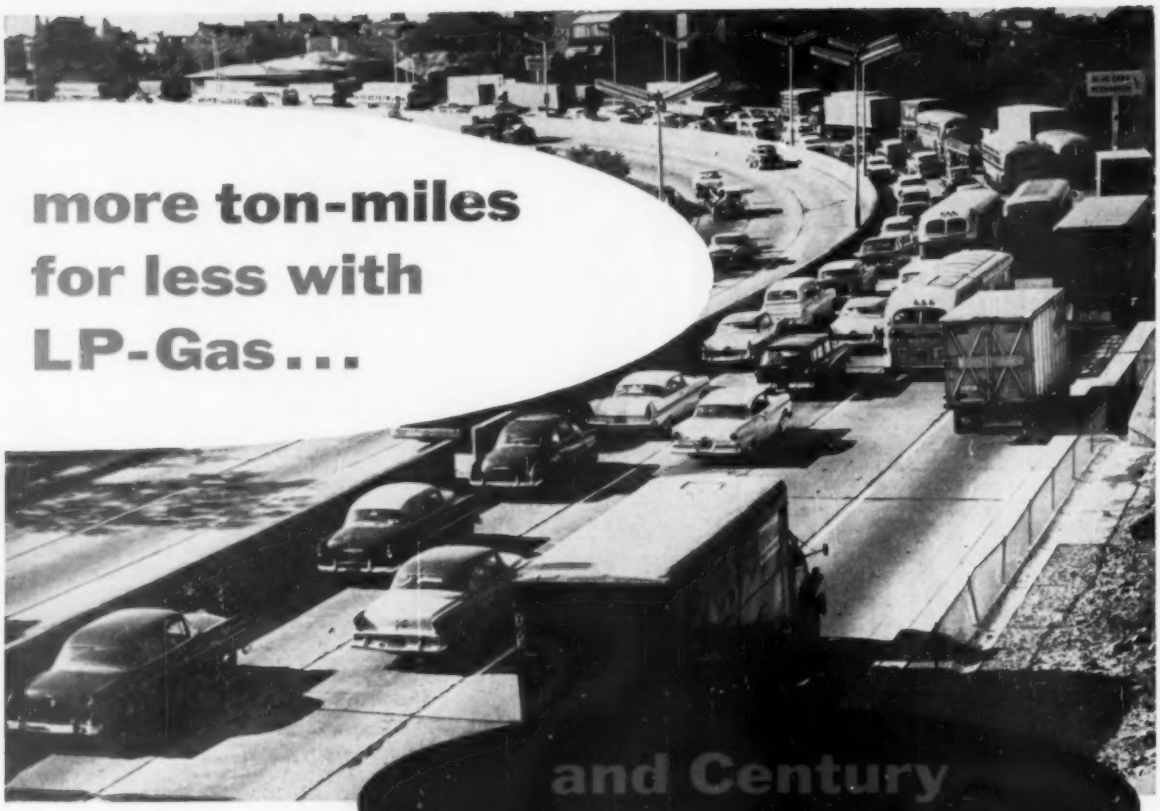
Next time you order cartridges, get Hastings—and you'll always have clean oil in every vehicle you operate.

HASTINGS MANUFACTURING COMPANY • HASTINGS, MICHIGAN

Filters, Piston Rings, Casite, Spark Plugs

* When replaced as normally recommended. Proved by tests conducted under supervision of Pittsburgh Testing Laboratories, in accordance with U. S. Bureau of Standards procedure.

U. S. Patent Nos. 2,707,811 2,584,771



more ton-miles for less with LP-Gas...

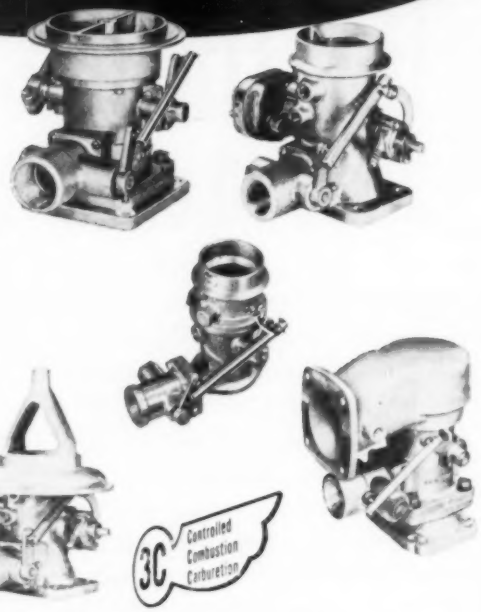
and Century 3C Carburetion

LP-Gas and Century Carburetion offer many money-saving advantages to truck fleet operators—lower fuel costs, lower maintenance costs, less downtime, and more ton-miles of trouble-free operation—and Century combines this economy with top performance.

Century 3C Carburetors are individually designed for each make of engine, and they are factory-calibrated and pre-set to its performance curve. You get easy starting, perfect idling, constant power and speed in all operating conditions.

Century 3C Carburetion, a product of Borg-Warner, employs a metering valve system to provide perfect fuel-air mixtures at all throttle settings. Performance is not dependent upon delicately adjusted, spring operated pressure regulators. That's why only a tune-up adjustment is required when installing a Century—you *just set it, seal it and forget it.*

Get the facts! Write for booklet titled, "How Truckers Save on Fuel, Lubrication and Maintenance."



There is a 3C Century Carburetor for every make and model of truck engine.

CENTURY
LP-GAS CARBURETION

Export Sales: SinPar Automotive Div., Singer Products Co., 15 Moore St., New York 4, N. Y.

Century Gas Equipment
Marvel-Schebler Products Division, Borg-Warner Corp.
625 Southside Drive, Decatur, Illinois

PROVE FOR YOURSELF HOW THESE

HEAVY DUTY SPARK PLUGS

can lower your cost-per-mile

Use something better:

ROBERT BOSCH *Heavy Duty* SPARK PLUGS

Make this test: Compare your service records on a few sets of ROBERT BOSCH Heavy Duty Spark Plugs—versus any other plugs you are using! Compare for low cost-per-mile! Compare for long-life-dependability!

Results will amaze you—and your drivers. Made 3 ways better by ROBERT BOSCH, oldest spark plug manufacturer in the world! Original equipment on many of the most famous engines. Available in a complete range of sizes and heat ratings for every engine or service condition.

Ask your supplier for ROBERT BOSCH Heavy Duty Spark Plugs—or mail coupon below for spark plug facts you should know.

MADE 3 WAYS BETTER

What a difference in heavy duty service on trucks, tractors, buses!

1. ROBERT BOSCH Heavy Duty Spark Plug is the only plug with the diamond-hard Pyranit® insulator. Pyranit® resists high temperatures, mechanical damage, electrical failure.

2. The only plug with electrode alloys of ROBERT BOSCH specifications developed to withstand chemical actions and thermal stresses in the combustion chamber.

3. Heavy duty construction throughout, from over-sized center electrode to leak-proof seals, insures long-life-dependability.

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Please send us full information about ROBERT BOSCH Heavy Duty Spark Plugs. We operate _____ trucks.

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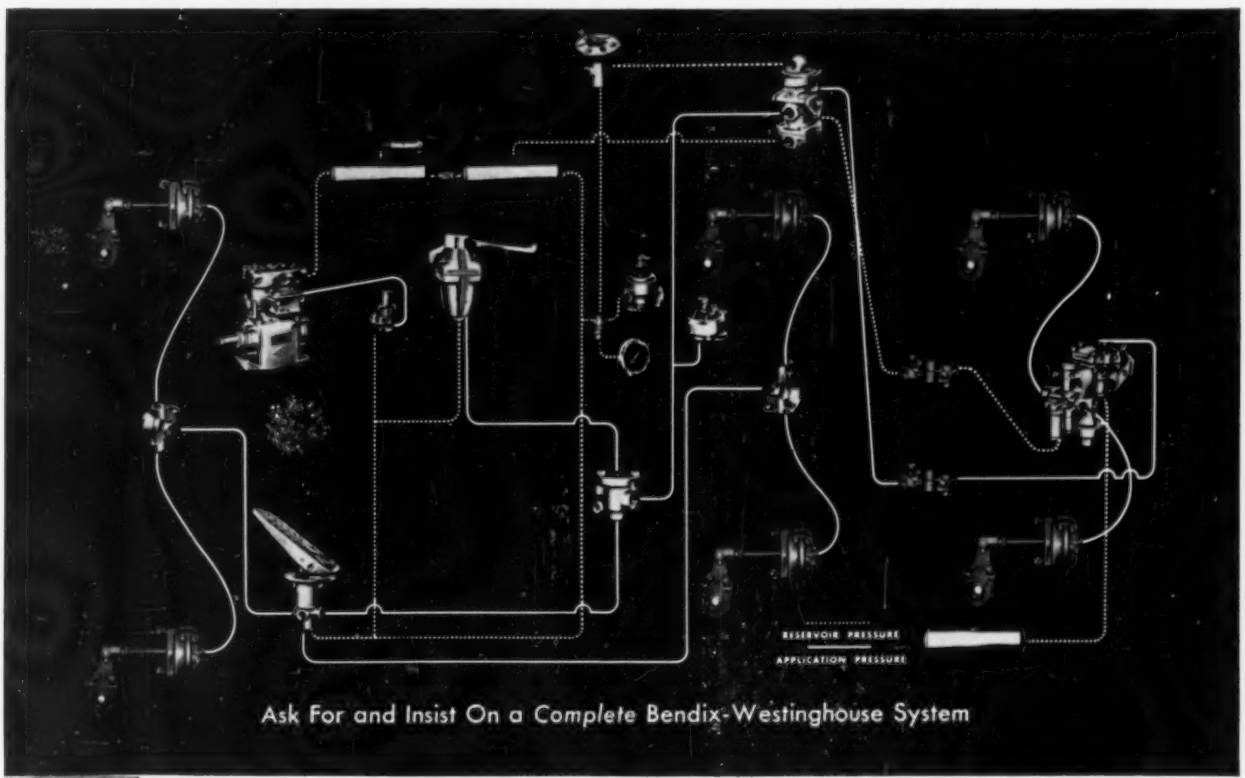
THE COMPLETE CHAIN IS

WHAT COUNTS!

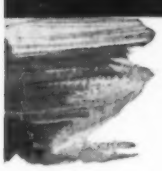
Yes . . . the *complete* chain . . . made of safety-forged, matched links . . . with the built-in dependability and performance that only an experienced chain maker can deliver. It's the same with air brakes. You *could* buy a link here and a link there. But you get by far the most efficient, most reliable performance when you specify a *complete* Bendix-Westinghouse Air Brake System. It, too, is engineered as a complete "chain" in which every part and every component is *system-engineered* to do its specific job with peak efficiency. And for that reason you not only get top performance with Bendix-Westinghouse—but get it over a longer period of time and at less cost than is possible any other way.

Best proof of this is that more trucks and buses are equipped with Bendix-Westinghouse Air Brakes than with all other makes combined. These thousands of truck and bus operators who make up the Bendix-Westinghouse "family" long ago proved an important fact to their own satisfaction—that it pays to let us assume full systems-engineering responsibility for air brake performance, dependability, and long, economical service life.

Another exclusive advantage you get with Bendix-Westinghouse is our Repair Exchange Service—most outstanding in the entire industry. It permits exchange of any worn unit for a factory-reconditioned replacement unit, rebuilt to the latest design, at nominal cost and with new-equipment warranty.



Ask For and Insist On a *Complete* Bendix-Westinghouse System



Bendix-Westinghouse

AUTOMOTIVE AIR BRAKE COMPANY

General offices and factory—Elyria, Ohio. Branches—Berkeley, Calif. and Oklahoma City, Okla.

These Changes Are Coming in '59

Past production is pointing the way to more economy in engines, and there will be fewer problems in keeping chrome bright. Watch, too, for longer oil change intervals, with more expensive oil, plus aluminum-corrosion problems.

ENGINE ECONOMIES are becoming of greater importance to truck operators, if production figures available in Detroit are any criterion. In 1957, gasoline-type V-8 engines were installed in 32.7% of all trucks made in the U. S., while for the first nine months of 1958 only a little more than 26% of all trucks had this type of engine.

Comparing the 12 months of 1957 with nine months of 1958, the picture stacks up about like this:

	9 Months 1958	12 Months 1957
Type Engine	% of Total	% of Total
V-8 Gasoline	26.2	32.7
Six Gasoline	64.6	61.6
Four Gasoline	6.4	3.7
Diesel	2.8	2.0

Ford continues to be the big promoter of V-8, claiming about 60% of the total V-8 truck business, while Chevrolet cops about 40 to 50% of the six-cylinder truck market. Willys has practically the entire four-cylinder field. Chief diesel builder, according to industry figures, is Mack—with about 50% of the market. But, with Detroit Diesel now making its new line available (see page 62), this picture could change—particularly since the DD line will cover a wide range of applications.

■

New chrome cleaner announced by Chevrolet sounds like good news for fleet owners. It's a compound called Brush-Glo which is said to restore badly rusted chrome and trim to new brightness at low cost. Eight ounces is enough to refurbish bright metal work on two cars. It also works on die-cast metals, aluminum, brass, copper or alloys used on modern cars. A pasty substance, it is applied to trim with a paint brush or rag, allowed to dry and then washed off. The solution is non-injurious to the skin or other parts of the body and will not affect auto paints.

■

5000-mile intervals for oil change are predicted for the new passenger car oil specs to be presented to the SAE Fuels and Lubricants Committee under a new SAE rating. It's too early to tell what oil industry reaction will be to the proposal, but look for some strong protests. However, one auto spokesman told FLEET OWNER that the oil industry might as well resign itself to making a better oil and charging $1 a quart for it instead of 60 cents.

If these economics go into effect, the fleet owner might have to pay more for each oil change, but he would have fewer changes during the year. Assuming that one of his cars builds up 30,000 miles a year, changing every 5000 miles would mean a cost of about $30. If he has been operating on an oil-change policy of once every month, the oil change cost would amount to about $36 a year.

■

New clues to work done by additives are being uncovered by radioactive technique developed by Chrysler Corp. Engineering Division. Sumner B. Twiss, assistant chief engineer in basic science research at Chrysler, says his company is using radioactive sulfur and phosphorus atoms which enable scientists to determine where and how the various oil additives go to work in the engine, and how they may reduce engine wear. Findings obtained in tests such as these will undoubtedly have tremendous influence on the design and success of aluminum engines in future passenger car and truck engines.

■

Corrosion problems posed by aluminum engines and cooling systems are going to be different from those previously experienced. So says Leonard C. Rowe, General Motors Research Laboratories' Chemistry Department. Pitting and galvanic corrosion are sure to be more prominent, he warns, and he suggests research on:

1. Effect of water impurities on corrosion and inhibition, inasmuch as impurities in various parts of the country affect present cooling systems.
2. Effect of heat transfer on metal corrosion.
3. Effect of surface boiling and hot spots.
4. Effectiveness of inhibition in crevices and low velocity coolant areas.
5. Effect of service variables such as poor maintenance, antifreeze re-use, and driver habits.

there is only ONE true heavy duty brake block "combination"—

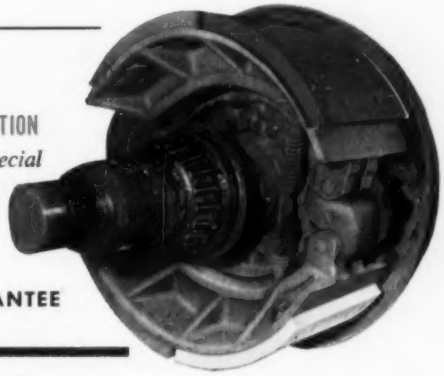
WORLD BESTOS RED BLOCK

- The *only* brake block system of *any* kind with an *unconditional NO-FADE GUARANTEE* (heat or water)
- Safe, dependable stopping power *proven* under the most abusive load and road conditions
- Longer lining life . . . longer drum life . . . *proven by* actual fleet operating records
- Only World Bestos RED BLOCK COMBINATION gives you all these important features that add up to *better, safer brakes . . . at lower cost per mile!*

RED BLOCK Superiority Proved by Millions of Miles of Rugged Service

Throughout the trucking industry . . . and especially in heavy hauling operations on-or-off the highway . . . RED BLOCK has delivered safety, economy and all-'round performance unequalled by any other blocks in similar service. For 10 years RED BLOCK has been recognized as the *short* name for World Bestos RED BLOCK COMBINATION . . . the only *true* brake block combination on the market.

WORLD BESTOS
RED BLOCK COMBINATION
Red Block + 3 Special "D" Blocks
The only Brake Block System with an unconditional
NO-FADE GUARANTEE
(Heat or Water)



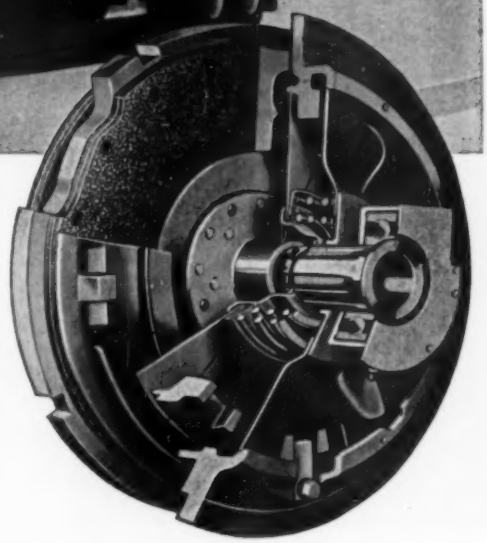
For complete information about World Bestos RED BLOCK Combination, call your World Bestos Distributor or write direct to

WORLD'S FINEST BRAKE LINING!

WORLD BESTOS

NEW CASTLE • INDIANA

Pilot buys 110 new Diamond T's with trouble-free heavy-duty Spicer Clutches



Concentrating on giving its customers the best and most dependable service possible, Pilot Freight Carriers Inc. of Winston-Salem, N. C., insists that every consignment be routed, dispatched and shipped on time.

Naturally, dependability and maintenance-free service take top priority in the selection of equipment for the Pilot fleet. Explaining his choice of new equipment, T. D. Nicholas, Director of Operations for Pilot said this, "Our 110 new Diamond T diesels are virtually trouble-free. They're out on the road making money . . . not tied up in the shop. The Maintenance Superintendent tells me we've never owned trucks that were any easier to service." As you would expect, every one of these 110 new low-maintenance trucks is equipped with a Spicer 14" two-plate clutch.

Built to deliver 100,000 or more trouble-free miles, these Spicer clutches employ an anti-friction design that reduces pedal pressure at the same time it insures chatter-free operation in both forward or reverse. To insure longest wear, uniform pressure is maintained at all times by permanently parallel contact surfaces that resist cocking at any degree of wear. But best of all, pressure spring tension can be readjusted in minutes, by almost anyone, without the use of special tools.

For simplest maintenance and longest wear, do as Pilot does . . . specify Spicer Clutches for your fleet replacement program.

DANA CORPORATION • Toledo 1, Ohio

DANA Spicer

DANA PRODUCTS Serve Many Fields:

AUTOMOTIVE: Transmissions, Universal Joints, Propeller Shafts, Axles, Powr-Lok Differentials, Torque Converters, Gear Boxes, Power Take-Offs, Power Take-Off Joints, Clutches, Frames, Forgings, Stampings.

INDUSTRIAL VEHICLES AND EQUIPMENT: Transmissions, Universal Joints, Propeller Shafts, Axles, Gear Boxes, Clutches, Forgings, Stampings.

AVIATION: Universal Joints, Propeller Shafts, Axles, Gears, Forgings, Stampings.

RAILROAD: Transmissions, Universal Joints, Propeller Shafts, Generator Drives, Rail Car Drives, Pressed Steel Parts, Traction Motor Drives, Forgings, Stampings.

AGRICULTURE: Universal Joints, Propeller Shafts, Axles, Power Take-Offs, Power Take-Off Joints, Clutches, Forgings, Stampings.

MARINE: Universal Joints, Propeller Shafts, Gear Boxes, Forgings, Stampings.

Many of these products manufactured in Canada by Hayes Steel Products Limited, Merritton, Ontario.

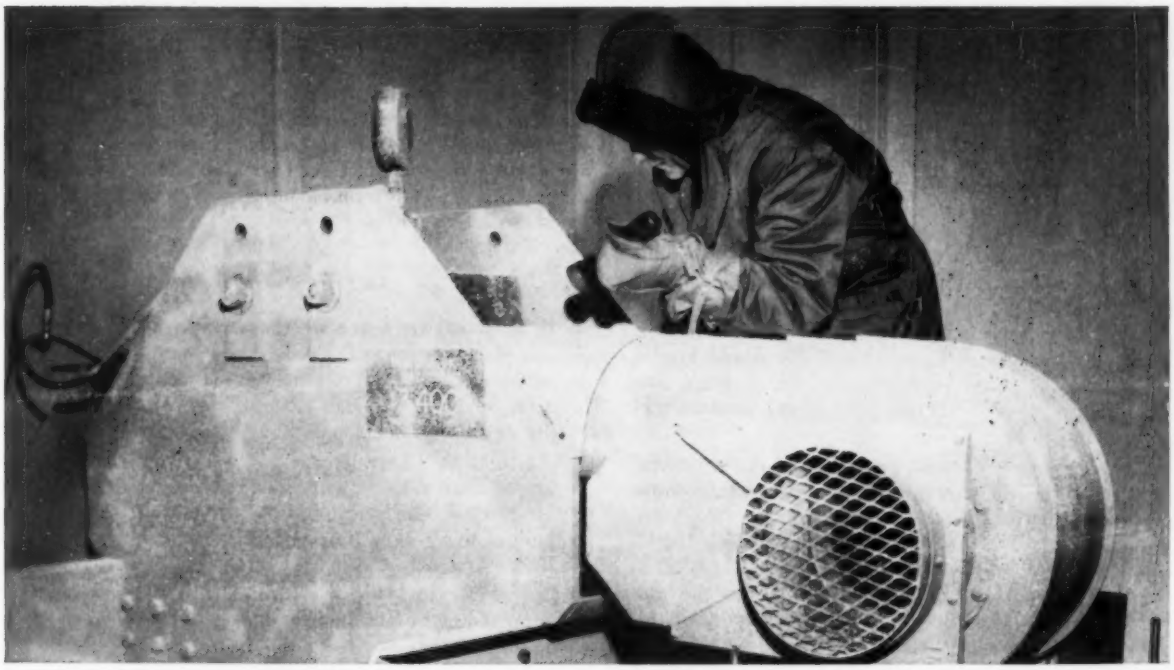
We built a North Pole to make sure TIMKEN® bearings roll the load at 60° below

(Another reason why TIMKEN® *bearings are first choice with truck manufacturers)*

TO make sure extreme cold is no problem for Timken® tapered roller bearings, we designed our own North Pole "testing grounds". It's unique in the bearing industry. You can see it here—the Cold Room in our new Customer Research Center. In this super freezer we reproduce bearing and lubricant operating conditions at temperatures as low as −60°F., to make sure Timken bearings roll the load in any kind of weather. It's another step we take to be certain Timken bearings run better, last longer.

Timken bearings are geometrically designed to roll true. And they're precision-made to live up to their design, from melt of steel to final bearing inspection. We even make our own fine alloy steel to assure quality. America's only bearing manufacturer that does. You can see why Timken bearings are first choice with truck manufacturers.

When you need a tapered roller bearing replacement, specify *Timken* bearings. And for helpful service information, send for our free booklet, "The Care and Maintenance of Timken Tapered Roller Bearings in Automotive Equipment." Write Dept. OF-1, The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".



SINCE THEY'RE BEST WHEN THE TRUCK IS NEW, THEY'RE BEST FOR REPLACEMENT, TOO!

TIMKEN® *TAPERED ROLLER BEARINGS ROLL THE LOAD*

Now, the End of Chassis Lube

'59 marks the beginning of the end for chassis lubrication with the introduction of lube-free bearings. Also, the new year spotlights the introduction of the first U. S. small car from the Big Three—with more to follow soon.

THIS YEAR WILL SEE two developments completed—developments which will mean added profits for passenger car fleet operators.

- One will mean that in three to five years fleet owners may no longer be burdened with the cost and bother of frequent chassis lubrication. There will be no lube fittings.
- The other may mean the addition of a new line of fleet cars—the small car.

At least two 1960 model cars—the Thunderbird and Ford small car—will require no chassis lubrication at all. Consensus is that with the introduction of these two, other car makers will follow suit as quickly as possible. Prediction is that by the time 1962 models are introduced, the lube-free chassis will be a standard item.

Lube-free bearing now perfected by American Metal Products Co. makes this possible. Word came from the company that "at least one 1960 model" would be equipped with its non-lubricated lifetime fabric bearing. FLEET OWNER's Holger Ridder checked automotive sources and discovered Ford's Thunderbird and soon-to-be-announced small car would feature no chassis lube. Here's what he uncovered at other plants:

- *Chrysler*—which had privately told FLEET OWNER two years ago it was working toward this—now says it has made substantial progress. But from an engineering standpoint, it doesn't feel 100% ready. However, Ridder's source says Chrysler is close enough that if competition pushes the no-chassis-lube feature, Chrysler is in a position to give immediate action.
- *General Motors* told the same story. Ridder's source there says that if competition forces the issue—and it looks like the public will buy—GM divisions can be expected to follow.

Generally, it's felt that this year's introduction will start the ball rolling. Within two years virtually all new cars will probably be designed for no-chassis-lubrication.

Lube-free chassis now developed is another step to make modern cars as service-free as possible. A Big Three spokesman said this idea extends beyond chassis to other things: engine oil, transmissions, rear axles and other components of a car which need field service.

"What we're aiming for," he said, "is a car which will require checking—not necessarily servicing—every 5000 miles. The only thing a customer would have to worry about is keeping the car filled with gasoline. We look for a closed cooling system that is factory sealed. Even with tires we see developments ahead which will preclude the need for periodic checks."

Use of lube-free-chassis on small cars isn't surprising. It adds another plus to small cars' main attraction—economy. Granted, it's only a saving of about $18 a year, but added to other economy features, the manufacturer comes up with an economy package which may interest a large number of auto fleet operators.

■

U. S. small cars are on the way in a big way. The introduction of Ford's small car supports earlier FLEET OWNER reports that the public will get a big selection of small cars, before long. Here is the way things stand now . . .

. . . *at GM:* Chevrolet has now let all the tooling for its small version, and tooling will be completed by June of this year. The GM small car will be built at the Willow Run truck plant. It will have a 106 to 108-inch wheelbase.

. . . *at Chrysler:* It's also rushing a small car program and plans introduction about mid-1960. Chrysler still has a tooling lead-time to overcome. Plans are to build at the Dodge main plant (Hamtramck, Mich.) but an extension of the Dodge strike—in December—could cause a change.

. . . *at American Motors:* AMC plans to expand its production facilities to meet the still growing demand for its Rambler. Rambler is getting back at Volkswagen's estimated 90,000 sales here. AMC has made sharp gains in foreign sales, up over 10% this year and still growing.

. . . *at Studebaker-Packard:* S-P still shows great promise of extending its share of the U. S. new car market.

The world's best-selling car has greater load space . . . accessibility!

The car hottest in demand is easier to enter . . . more comfortable to sit in!

America's sold

(and your salesmen will be, too!)

The best seller is the 59 Ford and the big reason for Ford's success is that it makes wonderful sense.

Fords are built for people. And this makes your *salesmen* happy. Doorways are wider—easier to get in and out of. Trunks are easier to load. In fact, Ford's trunk opening is almost a foot *lower* than Ford's nearest competitor. Seats are *fully* cushioned.

Fords are built for savings. And this makes *everybody* happy! Standard Ford engines thrive on regular gas (at regular prices). Full-Flow Oil Filter means oil changes only every 4000 miles. *Aluminized* mufflers last *twice* as long as ordinary types. And the world's most beautifully proportioned cars have the world's finest finish. It needs no waxing—*ever!*

No wonder fleet buyers are sold. It's just good sense to do business with

...59 FORD FLEETS.

The car with the biggest following is the car with Thunderbird elegance!

The No. 1 car in sales saves money on gas, on oil, on maintenance bills!

The most popular car is the lowest priced of the best-selling three!

ENGINEER'S FIELD REPORT

PRODUCT: RPM MULTI-SERVICE GEAR LUBRICANT

FIRM: YAKIMA CEMENT PRODUCTS CO. Yakima, Washington

No scoring or pitting of differential gears in 6 years

In Six Years of using RPM Multi-Service Gear Lubricant, not one differential in the entire 20-truck fleet of Yakima Cement Products Co. has shown any scoring or pitting of gear teeth. Despite grueling service delivering ready-mix concrete and other building materials to off-highway construction sites, lubricant has never failed to do its job. Firm's six-wheel-drive trucks supply sand, gravel, ready-mix concrete, and fabricated concrete products to projects within 100 miles of Yakima, Washington.

Ready-Mix Truck like rest of firm's vehicles, is rebuilt Army surplus 2½–3 ton International. "In the fleet of 21 six-wheel-drive trucks, we have never had a transmission or differential failure due to lubrication, despite our severe operating conditions since we started using RPM Multi-Service Gear Lubricant," says firm's chief mechanic, Art Weber. This lubricant is also used in all mixer drive gear boxes.

Why RPM Multi-Service Gear Lubricant prevents wear

- Special compound forms protective lubricating coating on gears by chemical reaction with metal...resists rubbing action of hypoid gear teeth.
- Withstands extreme temperatures and pressures...highly oxidation resistant...keeps bearings and gears cool.
- Inhibitors resist rusting, stop foaming...lubricates integral bearings...will not separate.

For More Information or field help with any fuel or lubrication problem, contact representative of any company listed or write direct.

LUBRICATING OILS
RPM DELO

TRADEMARK "RPM DELO" AND DESIGN REG. U. S. PAT. OFF.

STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20
THE CALIFORNIA OIL COMPANY, Perth Amboy, New Jersey

STANDARD OIL COMPANY OF TEXAS, El Paso
THE CALIFORNIA COMPANY, Denver 1, Colorado

17 Cattle Trucks and Not One Beef!

NEW ALLSTATE TRANSVERSE RIBS

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E. W. DRISCOLL, DBA
Ackley Truck Line

No slides, no slips – faster trips on rough Rocky Mountain run

"Heavy loads of cattle shift their weight and tires take terrific overloads. Mountain trails, muddy farm roads and ice make our Colorado-Wyoming-Nebraska runs still tougher. New ALLSTATE Transverse Rib Tires on fronts and drivers give us tremendous traction and control—with reduced cost per mile, faster overall runs and reduced beef losses." Patented interlocking tread does it. Your choice of Nylon or Rayon. Insist on the finest tires. Specify ALLSTATE as original equipment on any new truck purchases you make, too!

SEARS ROEBUCK AND CO. **ALLSTATE**

SEE SEARS FOR SALES AND SERVICE AT OVER 700 STORES COAST TO COAST

What to Watch in Heart Disease

THE SIMPLE ACT OF DRIVING causes more and more strain. This is especially true in cities where traffic gets heavier all the time, where there are passengers or cargo to worry about and schedules to meet. Just looking out for the unexpected puts even the best driver under stress—stress which might aggravate a driver with heart disease and cause a serious accident.

Generally, heart disease may be an important factor in causing accidents. But remember that there are various types of heart disease, and not all of these cause the driver acute discomfort or result in an accident. The fleet operator should be primarily interested in those types that are incapacitating and are dangerous to drivers.

Look for these types of heart disease, among all your employees. Diseases of the heart are not restricted to older men, either—some are found in younger people all the time. Each case is an individual one and must be evaluated on that basis. Depending on the condition of the patient and the type vehicle he will drive, men with heart conditions can often safely return to driving.

• *Rheumatic fever* victims must be restricted during the disease process. Depending on the degree of recovery, the patient may return to driving commercial vehicles unless certain dangerous irregularities exist.

• *Hypertensive heart disease* results from high blood pressure. In its milder form it is not likely to cause any serious incapacity. Severe hypertension and accompanying complications are dangerous because of the possibility of hemorrhage or stroke and accompanying paralysis. It is difficult to establish "safe" levels of blood pressure but any level above 180/100 is usually considered seriously above normal.

• *Hardening of the arteries* (arteriosclerotic heart disease) is one of the most serious and frequent types of heart disease. The result, the so-called "heart attack," may be unconsciousness or sudden death, brought on by a coronary occlusion or closing of one of the large arteries of the heart. The occlusion is caused by cholesterol in the blood vessels.

Cerebral vascular disease should also be considered with this group since it is associated with inadequate blood flow to the brain, caused by hardening of the arteries. This condition may also cause sudden unconsciousness.

• *Chest pain* (angina pectoris) is usually due to the inability of the coronary arteries to adequately supply the heart muscle. The patient suffers so much pain that he may be disabled or fall unconscious while driving.

• *Many other types* of heart disease occur. They stem from any of a number of causes peculiar to the individual—chemical or biologic causes within the body, such as the results of other illnesses or malformation at birth.

The heart is a small machine doing a large job, and you must conserve its efficiency through proper care, frequent check-ups and by following the advice of your physician. There are various stages of heart disease, ranging from no disability at all to complete disability.

Therefore, it must be left up to a competent physician to evaluate every case of heart disease on its own characteristics. With cooperation, the industrial physician can integrate the patient and the job to the best advantage.

Look for these symptoms in your employees and in yourself. It must be stressed that these symptoms do not necessarily indicate heart trouble or disease, but when present they should definitely be checked by a physician. Here are seven of the most common symptoms associated with heart disease:

1. Shortness of breath
2. Inability to lie flat when sleeping
3. Swelling of the ankles
4. Blueness of lips
5. Rapid heart beat (palpitations)
6. Irregularity of heart rhythm
7. Severe chest pain

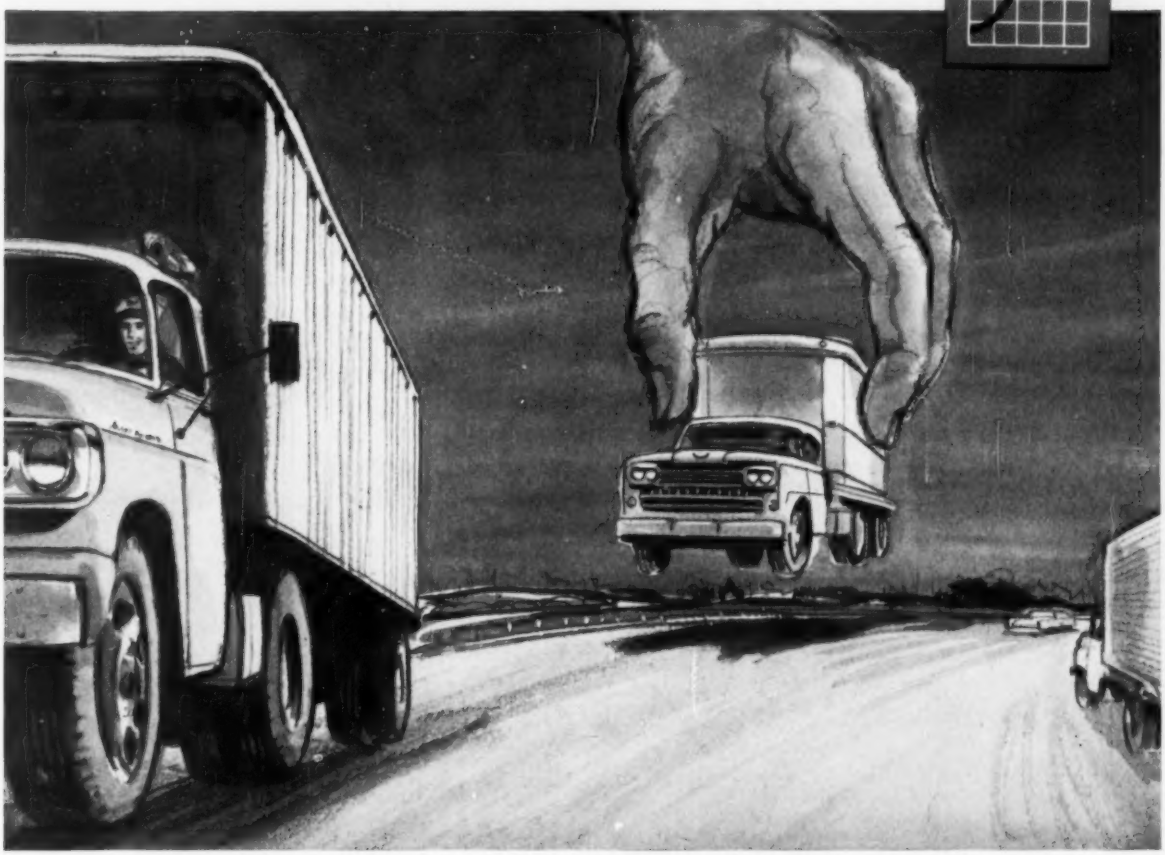
Remember, these do not definitely indicate heart disease. The physician must check and evaluate the entire patient. Then he can suggest the treatment and corrective action necessary.

Look for some help in the future on determining a patient's capacity for different types of work, and in preventing, treating and curing some types of heart disease. Medical research scientists are always investigating heart diseases, since it is the nation's number one killer.

Several studies are in progress now to determine the frequency and importance of various types of heart disease in relationship to motor vehicle accidents. Although the need for statistical information is still great, significant strides have been made. Next month, this column will discuss some of the criteria established for the fleet world, as well as the industrial rehabilitation of cardiac patients.

Harold Brandaleone, M.D., FLEET OWNER's medical consultant is chairman, Committee on Standards for Motor Vehicle Drivers of the Industrial Medical Assn.

ADD OR REPLACE FOR PROFITS



Bring NOW-ness to Your Operations with ASSOCIATES FLEET FINANCING

NOW... expand operations and meet competitive situations by purchasing new equipment when it's most needed.

NOW... benefit from the cost-saving advantages of new equipment... pay for it from additional profits.

NOW... make major fleet additions and replacements *without* suddenly draining vital working funds.

NOW... haul bigger payloads; reduce "down time" and operating costs by updating and upgrading equipment.

NOW... take advantage of accelerated write-off methods of figuring depreciation in the financing of your equipment.

Take advantage of the most modern, *flexible* finance plan geared to your individual fleet financing problems. Ask your truck dealer for complete details of the Associates fleet financing plan.

You're never far from an Associates Branch

Total Assets in Excess of $900,000,000

Associates

SOUTH BEND, INDIANA

"A PIONEER IN AUTOMOBILE FINANCING FOR NEARLY A HALF CENTURY"

"With Stainless Steel tankers we can guarantee clean shipments," says Mr. Carl Wilkens, Manager, Catalin Corp. of America Plant, Calumet City, Illinois

"Our sales people insisted that we get Stainless Steel tankers," says Mr. Wilkens. "With Stainless, we can guarantee our customers that shipments will not be contaminated.

"We transport industrial resins, formaldehyde, and phenol in each of the five Stainless tankers. We don't worry about residue from one shipment spoiling the next because the Stainless is easy to clean between batches. It resists corrosion and keeps a smooth, dense surface that can be thoroughly cleaned with detergents or caustic solutions. It takes only one hour to ready a Stainless tanker for a new shipment.

"Because the Stainless Steel is so resistant to corrosion, these tankers will last indefinitely. They're strong—need very little maintenance, and they always look good."

Eliminate corrosion and product contamination in your fleet. Make your next tanker Stainless Steel.

USS is a registered trademark

This Clean Bore tank of Type 316 Stainless Steel is made by the Heil Company, and has 3650 gallons capacity.

United States Steel Corporation—Pittsburgh
American Steel & Wire—Cleveland
National Tube—Pittsburgh
Columbia-Geneva Steel—San Francisco
Tennessee Coal & Iron—Fairfield, Alabama
United States Steel Supply—Steel Service Centers
United States Steel Export Company

USS United States Steel

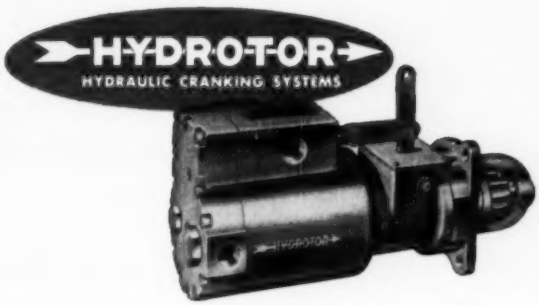
. . . and the starting is rugged!

Expensive, too. When freezing weather strikes, countless man hours, machine hours and profits may be squandered before your equipment gets going.

BUT . . . for a fraction of the money you're now losing on cold weather starting, you can equip your engines with ***AMERICAN BOSCH*** Hydrotor hydraulic cranking systems that spin engines lightning fast even in sub-zero weather. The minute the day's work starts — every piece of equipment can be running and ready for action — with Hydrotor.

Hydrotor cranking power is always available—even after months of idleness. And for major savings . . . Hydrotor systems operate without batteries to spare you the incessant expenses of battery maintenance and replacement.

Learn more about Hydrotor—the revolutionary system that uses oil under pressure to crank engines faster with greater power. Send today for free brochure H 110-02-2 and the name of your nearest Hydrotor distributor. ***AMERICAN BOSCH*** Division, American Bosch Arma Corporation, Springfield, Massachusetts.



For construction, trucking, marine, logging, oil field equipment

6427

AMERICAN BOSCH ARMA CORPORATION

GVW vs PAY-LOAD

WHERE A POUND SAVED IS A DOLLAR EARNED:

By saving dead weight, vacuum power can add several hundred pounds to pay-load, and earn extra dollars, as ton-miles build up.

In addition there is vital safety in having physical braking instantly available should power fail for any reason.

For these and other important reasons, vacuum power is the overwhelming choice on trucks, and HYDROVAC* leads all other makes combined.

...It will pay you to look into

HYDROVAC (VACUUM HYDRAULIC) POWER BRAKING BY BENDIX

*REG. U.S. PAT. OFF.

Bendix PRODUCTS DIVISION South Bend, IND.

Bendix AVIATION CORPORATION

LETTERS TO THE EDITOR

FO Corrected

Dear Sir:

In the "Across the Editor's Desk" article in the November issue, (p 196), the item concerning Seaboard Air Line Railroad moving their records by truck, was incomplete. You stated that Seaboard moved the records from Norfolk to Portsmouth, Va. However, the records were moved from Norfolk and Portsmouth to Richmond, Va. to Seaboard's new general office there.

JOHN R. HARRIS
RICHMOND NEWSPAPERS, INC.
RICHMOND, VA.

PM Schedules

Dear Sir:

We are planning to organize a company which will prepare and set up Preventive Maintenance schedules for enterprises needing this service. Due to your experience in this field, we feel that you are in a good position to tell us what you think of this idea. We would also like to know if there are any other private companies selling this service which are now in operation.

WILLIAM H. COONS
ASHLAND, KY.

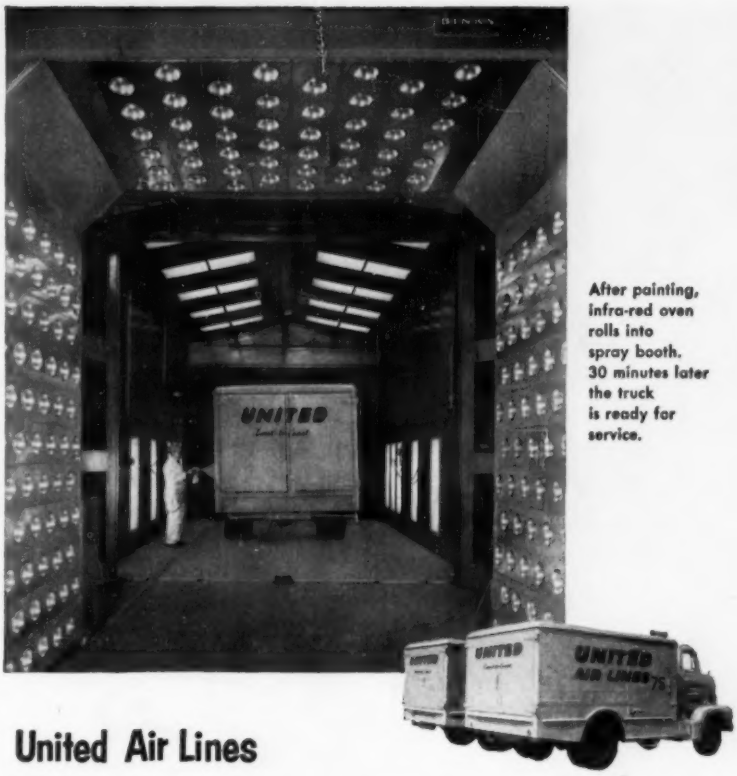
■ **As far as we know, there is no private organization set up to prepare PM schedules—but all of the major truck manufacturers and oil companies will assist fleet owners in setting up these programs. And there are several consulting firms that will perform this function at a fee. However, we do think there is a need for this type of organization, if it is well run and staffed by experienced people.**

1958 Color Awards

Dear Sir:

We reviewed the "1958 Color Awards" article with interest in the November issue of FLEET OWNER. Could you send us copies of the three publications mentioned on pg 104:

Continued on page 47



After painting, infra-red oven rolls into spray booth. 30 minutes later the truck is ready for service.

United Air Lines

Saves on painting time & space

"From a customer relations standpoint, our ground equipment must look as good as our spotless aircraft," reports Mr. George Lantz, United's Chief of Plant Maintenance at Midway Airport in Chicago. "We were jobbing out part of this work because we had limited space in our paint shop, but our gear was away from the airport for long stretches at a time. A Binks engineer helped us solve both our time and space problems."

How time was saved...based upon previous experience, Mr. Lantz recommended the installation of Binks equipment and called in Binks engineers for consultation. A Binks "drive-thru" spray booth and drying oven were installed to produce factory quality, dust-free finishes... quickly dried to a mirror-like hardness. This set-up accommodates the largest trucks or several units of small equipment. A climate-controlling filtered air supply system was also installed in the shop to replace the air exhausted through the booth and to prevent dust infiltration.

How space was saved...the drying oven was placed on tracks so it could be rolled into the booth for finish drying or storage when not in use. Electrical interlocks prevent accidental simultaneous operation.

Engineering assistance—yours without obligation...over 60 years of unmatched experience in the manufacture and application of spray painting equipment is ready to serve you. Call your nearest Binks office or write to the address below:

Ask about our spray painting school
Open to all...NO TUITION...covers all phases

671

GUNS

COMPRESSORS

EXTRACTORS

Binks
EVERYTHING FOR SPRAY PAINTING

Binks Manufacturing Company
3132-36 Carroll Avenue, Chicago 12, Ill.

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Lower Battery Drain—No need now for heavy duty batteries and generators. Current drain on "stand-by" is 1/3 that of tube-type receivers, 1/15 with battery saver switch.

Greater Reliability—Transistors, printed circuits and new design all greatly increase reliability.

Smaller, Lighter—Approximately 1/2 the weight, 1/3 the size of other models. Mounting in tight quarters easier than ever.

Completely transistorized receiver and power supply...Another Motorola First!

Here is 2-way radio with efficiency and reliability never before approached in mobile radio. No more tubes in the receiver —no more vibrators in the power supply . . . all are replaced by long life, dependable transistors. No longer is it necessary to idle the vehicle to keep the radio operating. Savings in gasoline, engine wear and batteries add up fast. Let us prove to you how MOTRAC radio will cut your radio operating costs . . . while giving you reliability never before possible. Write today.

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LET THIS MIKE MAKE MONEY FOR YOU!

Save time and labor with this handy Central Connecting Rod Journal Micrometer. Available in two sizes — No. 50 (range 1½"-2½") and No. 53 (range 2¼"-3¼") — this easy-to-read mike will measure practically all rod journals.

The graduations on the underside of the barrel are handily located for accurate reading while the tool is in measuring position. No more neck craning or removing the tool for reading as required with conventional micrometers.

Ask your jobber for complete details on this and other labor-saving Central Automotive Tools. Or write for Catalog 46.

The Central Tool Company
479 Wellington Ave.
Cranston 10, R. I.

Central

CERTIFIED ACCURACY

Micrometers	Thickness Gages
Inside and Outside	Steel Rules
Depth	Slide Calipers
Bench	Depth Gages

LETTERS TO THE EDITOR

Continued from page 45

"Color: Fleet Owner Special Report", "Color Engineering: What It Is", and "How to Pick a Color Design." We are enclosing in this letter a recent photograph of our 8500-gal. aircraft refueler with Scotchlite side emblems and banners, and would appreciate suggestions or comments you might have regarding this design.

A. M. KURZECK
LOCKHEED AIR TERMINAL, INC.
BURBANK, CALIF.

■ **We're sending Mr. Kurzeck the three reprints which he requested. And we have sent the photograph of Lockheed's aircraft refueler to Fleet Owner's Color Consultant, Howard Ketcham for comment. Mr. Kurzeck should be hearing from him shortly.**

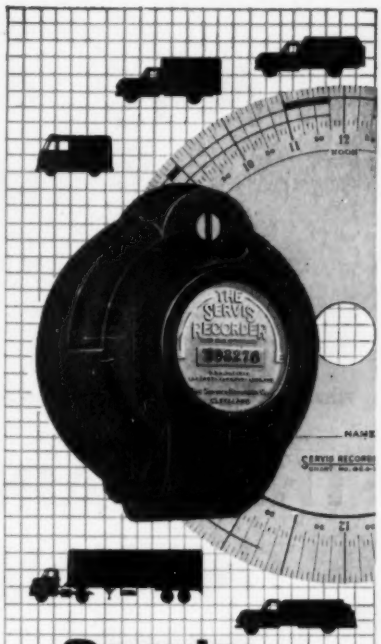
Scientific PM

Dear Sir:

Reference is made to an article that begins on p 60 of the April issue of FLEET OWNER, under the caption "Laboratory Analysis: How Science Can Cut Maintenance Costs." This article relates to a program combining applied science and technical know-how to reduce automotive maintenance costs at Pacific Intermountain Express. We would like to receive a copy of their report on the results of various laboratory tests which they have run recently. Thank you for your cooperation in routing this request through the proper channels.

WALTER W. SCOTT
MANAGEMENT SECTION
CITY OF PHILADELPHIA
PHILADELPHIA, PA.

■ **We've forwarded Reader Scott's letter to PIE. It's worth noting that issue-by-issue, the editors have found interest in articles that describe new methods of scientific analysis and control growing by leaps and bounds. It all goes to prove an important point: Fleet management and maintenance is moving out of the "dirty hands" category. It's becoming brain work in the real sense of the term. That's why the old-fashioned case study has disappeared from FO. Fleet men want to know what's new in maintenance, not what other shops with standard techniques are doing.** *Continued on page 49*



Servis Recorder

saves $800 per year per truck

"Average annual savings from reduced idle time, maintenance, bad scheduling, and overtime will amount to approximately $800 per truck per year for our 83 units," says management about Servis Recorders on its delivery trucks. "Improved customer relations resulting from the Servis Recorders on our delivery fleet is a plus value," says this executive.

Compact, foolproof Servis Recorders on your trucks accurately record busy and idle time on easily read, permanent charts. With unquestionably accurate records you can find the reasons for delays; and tighten up lax schedules.

Drivers like Servis Recorders for they substantiate job loyalty.

Send this coupon for
"10 WAYS TO GET MORE WORK FROM YOUR TRUCKS"

The Service Recorder Co.
1013G Rockwell Ave.
Cleveland 14, Ohio

NAME_____
TITLE_____
COMPANY_____
ADDRESS_____
CITY_____ ZONE____ STATE_____

THIS IS THE TRUCK

that gets 113,000 miles between valve jobs

THESE ARE THE VALVES

removed after 113,000 miles of service

THIS IS THE LUBRICANT

that helped achieve this unusual record

The truck belongs to Floyd E. Hires, of Danville, Illinois. The lubricant is Cities Service C-300 Motor Oil.

This outstanding record is typical of all Hires trucks and of Floyd E. Hires himself.

Hires started business in 1943 with one truck purchased for $350. Since then, he has parlayed that investment into a fleet consisting of 18 tractors, 29 trailers and nine single units, hauling up to a half-million pounds daily.

"In order to grow in the face of stiff competition, we had to find every possible means of keeping our costs at a minimum," says Floyd Hires. **"That's why we selected Cities Service lubricants, and they've certainly filled the bill.**

"Using Cities Service C-300 Motor Oil, our truck No. 34 needed nothing but a valve job after 112,000 miles. And even after **another 113,000 miles** it needed no major overhaul—just a valve and ring job.

"Or take our truck No. 28. After 206,000 miles, it was torn down for inspection. Cylinders showed only .002 taper! The engine was then put back together with the same wrist pins and proceeded to roll up a total of 320,000 miles before it required rebuilding."

The tighter the cost picture, the rougher the operation—the more the job calls for Cities Service fuels and lubricants. Floyd Hires and many others are saving money with these products. You can, too. Talk with a Cities Service Lubrication Engineer. Or write: Cities Service Oil Company, Sixty Wall Tower, New York 5, N. Y.

CITIES SERVICE

QUALITY PETROLEUM PRODUCTS

LETTERS TO THE EDITOR

Continued from page 47

Safety Report

Dear Sir:

A copy of your excellent 16-page special report on the "Ten Step Safety program" has just been reviewed by our staff. We plan to use this material as part of the manuals used in our various Motor Fleet Training Programs throughout the country. Could you send us about 2000 copies of this article?

RALPH E. THOMAS
INSTITUTE OF PUBLIC SAFETY
PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PA.

■ **Thanks for the remarks about our special report "Ten Step Safety Program." We're pleased that your staff feels that it will be a valuable addition to your manual and we would like to see a copy of it when it's completed to see how our reports fits into your over-all course. We'll be happy to supply you with 2000 copies, and you might be interested to know that 12,000 copies of this report have already been sold . . . and are doing, we hope, the job they were designed for—that is, to stimulate interest in safety and help fleet owners design adequate safety programs.**

Survey Orders

Dear Sir:

We saw on p 153 of the August issue of FLEET OWNER, a reference to some maintenance surveys which we'd like to include in our information library, so as to bring them to the attention of the Road Motor Engineers of the Commission. Articles of this type are of definite assistance to us in the information department. Survey copies which we'd like are: "Undercoating," "Cooling Systems," "Preventive Maintenance," "Road Failures," "Batteries," and "Vehicle Washing and Painting."

H. TAYLOR
BRITISH TRANSPORT COMMISSION
LONDON, ENGLAND

■ **Copies of each of the surveys which Mr. Taylor requested are on their way. Hope they will be of help to him in his work.**

FOR LOWER
TON-MILE COSTS

Replace
with *DEPENDABLE*
CONTINENTAL RED SEAL POWER

In highway hauling, as elsewhere, profit margins continue to shrink, and wise choice of rolling stock becomes more essential than ever. That is why more and more truckers are replacing original equipment engines with rugged Continentals, engineered expressly for the job. Choose from the models listed below. See your distributor today.

RED SEAL TRANSPORTATION ENGINES

GASOLINE

Model	Cyl.	Displ.	Bare Engine H.P.
N4062	4	62	26.3 @ 3500 RPM
Y4069	4	69	28.0 @ 3400 RPM
Y4091	4	91	36.0 @ 3400 RPM
F4124	4	124	47.0 @ 3200 RPM
F4140	4	140	52.0 @ 3200 RPM
F4162	4	162	58.0 @ 3200 RPM
F6186	6	186	77.0 @ 3500 RPM
F6209	6	209	90.0 @ 3500 RPM
F6226	6	226	98.8 @ 3500 RPM
F6244	6	244	103.3 @ 3500 RPM
M6271	6	271	96.5 @ 3000 RPM
M6290	6	290	108.0 @ 3000 RPM
M6330	6	330	125.0 @ 3000 RPM
M6363	6	363	146.0 @ 3000 RPM
B6371	6	371	123.5 @ 3000 RPM
B6427	6	427	142.0 @ 3000 RPM
FO6226	6	226	126.2 @ 3400 RPM
K6271	6	271	114.5 @ 3200 RPM
K6290	6	290	123.0 @ 3200 RPM
K6330	6	330	147.0 @ 3200 RPM
K6363	6	363	162.0 @ 3200 RPM
T6371	6	371	143.8 @ 3000 RPM
T6427	6	427	170.0 @ 3000 RPM
U6501	6	501	186.0 @ 2600 RPM
R6513	6	513	192.2 @ 2800 RPM
R6572	6	572	220.0 @ 2800 RPM
R6602	6	602	232.0 @ 2800 RPM
S6749	6	749	250.0 @ 2800 RPM
S6820	6	820	300.0 @ 2800 RPM
V8603	8	603	260.0 @ 3200 RPM

CUSHIONED POWER DIESEL

Model	Cyl.	Displ.	Bare Engine H.P.
TD6427	6	427	146.5 @ 2600 RPM
RD6572	6	572	172.0 @ 2400 RPM
VD8603	8	603	200.0 @ 2800 RPM
SD6802	6	802	225.0 @ 2200 RPM

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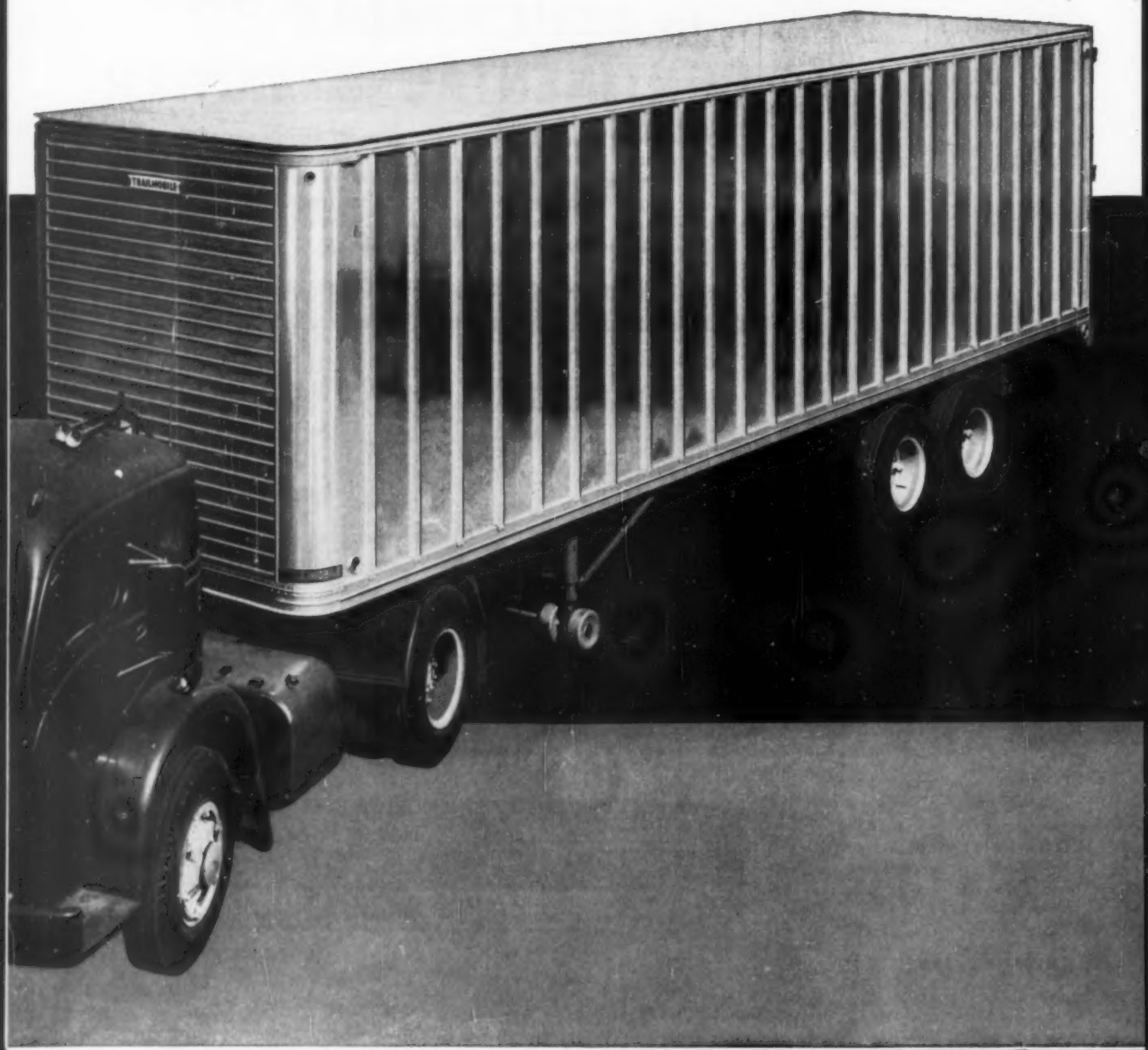
Custom
Design
Opportunity
No. 1

THE C-64



One of six custom design opportunities offered by new CID* SERIES '60

With the new C-64 trailer you can achieve excellent cube and weight characteristics without the usual and disappointing sacrifice of strength and performance features.

This trim, modern, all-aluminum van utilizes a space-giving 4″ upper fifth wheel to provide a full 96″ loading height throughout the trailer. And the inside width is a big 93″. This means good cube *plus* the advantages of straight floor loading.

And weight has been appreciably reduced! The famous Trailmobile tandem is lighter by hundreds of pounds. The props are lighter, too. And a new lighter gauge side panel—strongly reinforced by husky, outside posts on 16″ centers—offers an even further weight saving.

The C-64 gives you a new quarter panel (that eliminates leakage) and a new connector case (that simplifies trailer interchange) and many other features that you'd expect to find only in trailers costing much, much more.

We believe the C-64 is an exceptional value. We think you will too.

And remember, the C-64 is just one of six basic custom design opportunities with CID Series '60.

*Customer Individualized Design

TR-760

CID SERIES '60

TRAILMOBILE INC.

Cincinnati 9, Ohio • Springfield, Mo. • Longview, Texas • Berkeley 10, Calif.

NEW WIRING SYSTEM

The only wiring system that can be serviced with the trailer fully loaded now includes a new connector case that provides both 7-way and 6-way plugs, plus new quick-connecting terminals to simplify interchange when electrical connections do not match.

NEW TANDEM

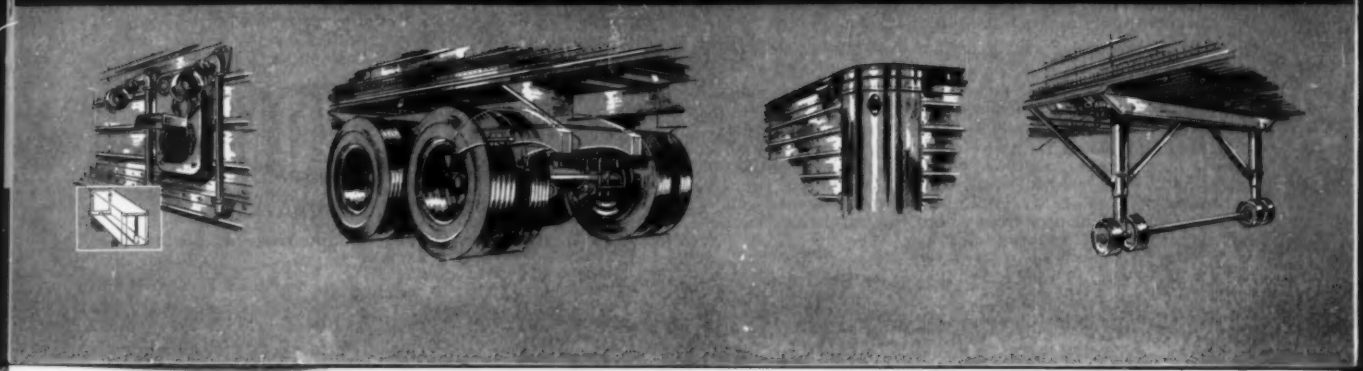
Here is the matchless Trailmobile tandem in an updated model that is lighter by hundreds of pounds. Newly designed rocker beams, a new, more stable 9-leave spring, and direct mounting of tandem to sub frame substantially reduce weight without sacrifice of strength.

NEW QUARTER PANEL

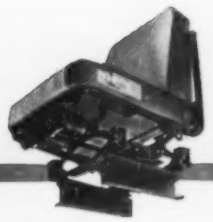
This is a husky aluminum extrusion which allows the roof fastenings to be moved to the outside of the trailer to eliminate the problem of leakage at all fastening points along front and sides. It also permits the roof sheets to be riveted.

NEW LANDING GEAR

This new unitized design brings you strength, light weight and perfect alignment in an easier-to-operate prop. A full 17" travel assures proper coupling under any ground condition. In addition, a positive locking feature prevents gears from disengaging while cranking.



BOSTROM **Q and A Bulletin**



How to get the most value out of Bostrom 80 LEVEL RIDE Seats

Questions seem to come up now and then about the use and care of Bostrom "Level-Ride" 80 Seats. Maybe you've asked some of them; so, here are some answers. If you have additional questions, send them along. We'll answer them for you and perhaps cover them in additional messages like this.

Q: *How do I justify the use of Bostrom "Level-Ride" 80 Seats?*

A: The advantages of "Level-Ride" 80 Seats really return the nominal additional cost many times over. Their big feature, of course, is that they remove 80% of vibration and road shock from truck driving. This reduces driver fatigue, makes drivers more efficient, more productive, safer, more profitable. Rest stops may be fewer and shorter. Scheduling improves. Driver turnover tends to go down. Driver respect for equipment goes up, which improves equipment handling. These and other advantages contribute to *cost reduction* and *improved profits.*

Q: *What are specific benefits to my company?*

A: Because "Level-Ride" 80 Seats take 80% of jolts, jars and vibration out of truck driving, many driver benefits follow. Obviously, there are *health benefits.* Reduce vibration and shock and you have healthier, happier drivers—*better "good will"* men when they contact customers and the public. Being less tired at the end of the day, drivers are happier on their jobs and at home, too. Also, since fatigue is an accident-prompter, Bostrom "Level-Ride" 80 Seats *increase driver safety.*

Q: *How long do suspension seats last? Do they stand up as well as standard seats?*

A: Generally, a Bostrom "Level-Ride" 80 Suspension Seat will *outlast* a standard seat. Much of the movement which wears out a standard seat is absorbed in the suspension system. This applies particularly to seat cushions and cushion springs. In all respects, Bostrom seats are built to high-quality, long-life standards. It must be remembered, however, that a truck *suspension seat is a machine*—with working parts subject to wear just as parts of all machines are. The seat could not provide the many benefits it does without being so. This does not mean shorter life than a standard seat, but it does mean that some attention must be given suspension seats in order to maintain their built-in long life.

Q: *What attention and maintenance are required on suspension seats?*

A: The primary requirement is *periodic inspection* of the seats. Points to check particularly are the seat mountings, the linkage between the mountings and suspension arms, bearings and rubber torsion springs. Especially check for loose seat mountings. If the seat becomes wobbly due to loose mountings, linkage and bearings are likely to suffer unnecessary wear, which in turn may adversely affect the torsion springs. *Always be sure mountings are tight.* Should wear show up on the linkage or bearings, replacement of these parts is recommended. This is very inexpensive and simple to do. Bearings otherwise should require no service because they are lifetime-lubricated with molybdenum disulphate.

Q: *What about torsion spring maintenance? What do I do if springs wear out?*

A: Normally rubber torsion springs in a Bostrom seat should last the life of the seat. Their fatigue life is *rigidly pre-tested,* to far exceed average wear. However, certain conditions—such as undue stress from seat wobble, contact with oil or grease, excess heat and, rarely but occasionally reported, unidentified factors—will result in springs wearing out. Replacement springs are available in the parts department of your dealer or distributor from whom you purchased the seat, and also from the Bostrom factory.

Q: *How important is driver weight adjustment?*

A: *Extremely important.* Adjustment to the weight of the driver is essential for a good ride. Be sure the driver checks the adjustment before he sits down. He should ride with the seat suspended in mid-range—with the suspension mechanism deflected *half way.* If the seat isn't quite right for the driver's weight after he sits down, additional adjustment can then easily be made.

Q: *What's the answer to topping and bottoming on rough roads or off the highway?*

A: If your trucks are frequently used over extremely rough roads or operated off the highway, or if the seat is installed in heavy equipment such as dump trucks, concrete mixers, earth movers, etc., the addition of a *Rough Usage Assembly is recommended.* This assembly acts as a shock absorber to minimize topping and bottoming. A Rough Usage Assembly, of course, stabilizes the driver operating over rough roads—gives him efficient control of his equipment and a comfortable ride. Your truck dealer or Bostrom distributor has Rough Usage Assemblies, which can easily be installed by attaching them to torsion lever arms in the seat suspension system.

Q: *Where is the best place to go for parts and service?*

A: Go to the dealer or Bostrom distributor from whom you purchased your seats. If further information or attention is required, Bostrom stands by to help you.

Bostrom "Level-Ride" 80 Seats are available on any make of new truck. They may also be installed on any of your present trucks. See your truck dealer or Bostrom distributor.

BOSTROM®

BOSTROM CORPORATION

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FLEET TRENDS . . .

What can truckers expect from the new Congress? Congress will start fresh when it reconvenes, since all legislation left pending is now dead. Bills left hanging when Congress quit have no standing and must be re-introduced and go through committee process again. So, as you try to figure the chances for some piece of legislation you're interested in, remember committee make-ups will be different—with differences going beyond the Dem-Rep divisions of the past few years. The Democrats will hold bigger majorities on most major committees. In the past, they have been more favorable to truckers than the Republicans, but no real conclusions can be drawn yet.

10,000 bills affecting highway users will be introduced in the 45 state legislatures meeting in '59, it is expected. The national and state legislative situation will require constant alertness by all fleet men.

—0—

Greyhound pulls out of auto renting—officially now—although it plans to stay in car and truck leasing for a while longer. The company won't say how much it lost on the rental operation, but industry sources place it around $1.5-million. These losses are presumably part of the reason for ex-president Genet's ouster last year.

Too much, too fast seems to be the main reason for the failure. The company rushed in with large numbers of cars in areas not fully checked as to market potential. Poor location of outlets—many of them in Greyhound terminals—are another cause cited by leasing sages. As of mid-December only some 20 company-owned outlets remained out of about 50. The rest were franchised operators, who are buying out from the bus company or looking around with Greyhound for new owners.

—0—

Labor's new problem for the New Year may take the place of last year's number one public menace—labor racketeering. This year the worry is inflation—and the prospect of being blamed for rising living costs. Labor leaders believe that the theory—wage rises are mainly responsible for inflation—is catching on. Economists are taking hold of this position. That's a likely forerunner to public opinion.

Union members are reacting to the idea. In the UAW negotiations last fall, union members showed some disposition to hold off demands for extra-large pay hikes. Top-priority goal among labor strategists is to dispel this idea. Otherwise, labor's bargaining position becomes severely weakened.

Along with Mr. Hoffa's big plans (see page 22) for bringing Sears workers in the Teamsters, he has problems. His announced aim to bring in the nation's policemen—doubtless to help fight corruption—and other local civil servants, has not been met with much enthusiasm. It has been disclosed that both the FBI and T-Men are on Hoffa's trail over various strange financial dealings. And Judge F. Dickinson Letts ordered the giant union

Continued on next page

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FLEET TRENDS . . . *Continued*

to comply with reform orders of court-appointed monitors. The union was barred from holding a scheduled new convention in March, a session Hoffa frankly arranged in order to seek an end to the monitorship.

—0—

Color contest winners have received national acclaim. Now's the time to plan on entering FLEET OWNER's 1959 competition for the most effective use of color. To request an entry form for this year's contest, send in the blank on page 93. For an answer to your own color problems, write to: Color Editor, FLEET OWNER, 330 West 42nd St., New York 36, N.Y.

—0—

Expect a hike in gasoline taxes. It's official now. The President recently unveiled the general outline of the 1960 budget. Revenue and expenditures will be in the general area of $77-billion, with the highest peacetime expenditure for national defense in history—estimated between $41- and $42-billion. "The budget will request," the President said, "increased receipts from higher postage rates and gasoline taxes, and some new user charges for government services, but will not call for general tax increases."

There have been solid rumors around for some time that the administration will ask Congress for a one and one-half cent a gallon boost in gasoline taxes. This would bring in the estimated $800-million to $1-billion a year extra needed to keep the highway program on schedule. Congress may want to spread the tax bite wider, however, and increase taxes on such items as tires, tubes, etc., to raise the money.

Truckers have more to worry about, however. If the administration attempts to slap new user charges on the air lines and waterway industry, as is rumored by administration sources, there is sure to be a toppling of the tax barrel. At present, both the air lines and waterway users pay a federal tax of two cents a gallon on gasoline that goes into the highway trust fund. If the new user taxes are sought from these industries, they are sure to want to have the taxes they pay on gasoline withdrawn from the highway program. It could mean that more levies would have to be placed on highway users.

—0—

ICC may remove drivers from service. In a notice of proposed rule-making, the ICC proposes to empower its field personnel to remove drivers who are found in excess of their weekly on-duty time or of their daily driving limit. The "out of service" tag could go on a driver anywhere, anytime a violation is found. The vehicle would remain stranded at the spot until a qualified replacement could get there. The tagged driver could not drive again until he had been off duty long enough to counteract his violation: eight hours for daily-time violation and two or three days for weekly violation. The Commission has set March 15, 1959, as the deadline for submission of answers to this proposed new ruling.

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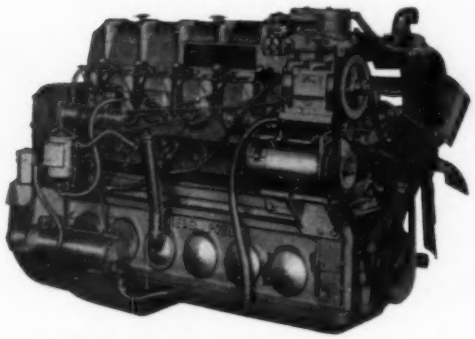

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With P&H Diesels under the hood, modern buses and trucks bring far-flung cities closer together by hours . . . and carry bigger payloads by hundreds of pounds. One big reason is "power-to-weight ratio."

Pound for pound, P&H are the most powerful diesels built! Modern aluminum design makes them up to 1000 pounds lighter than diesels of comparable power. Add plenty of torque and reserve power and it's easy to understand why it pays to "power-up" with P&H!

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When you think of diesels—for original or replacement power—think of P&H . . . the one diesel with all the features that deliver top performance. P&H Diesel Engine Division, Crystal Lake, Illinois.

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Please look at your ring jobs through these Stainless Steel glasses

Next time you have a unit down, install American Hammered Krome-Oil with stainless steel oil rings. These rings are of a completely new material, completely new design. They positively control oil, eliminate smoking.

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FLEET OWNER

A Look at '59: How Recovery Will Affect the Fleet Business

FLEET OWNER MADE A PREDICTION a year ago and it held true: The 1958 business readjustment did not last very long. For a while things looked worse than expected. Production nose-dived in the early months, as business cut back on inventories—cut back harder than anyone had thought, and perhaps harder than was really justified. With factories using up their stocks, freight movement fell sharply too—for both truck and rail loadings.

The downward trend ended by mid-year though. Inventory slashing had gone too far. And production schedules had to be increased.

Starting after the July 4th holiday, industrial production and retail sales spurted in the closing months of 1958. When figures for the year are totaled up, it will rank as one of the mildest recessions in history, and one of the shortest. In the final quarter, of 1958, dollar volume of business activity had set a new high—surpassing the 1957 peak. Factory production had not quite regained its old mark. But business volume in retail, as well as construction, utilities and other services, was making new records.

The outlook for 1959 is even brighter. For we are still in the early stage of recovery. Typically an upswing—once it gets started—runs for two years or more. There's still no real boost from the automobile or heavy machinery industries—both of which are just starting to move up. If they also get back near 1957 levels, then 1959 as a whole will clearly be a record breaker.

What's really behind this? What's causing the recovery? If we can get a line on that, we'll have some idea of what's ahead. The change from inventory cutting to inventory building has been important. In the dollar volume of goods shipped, this inventory switch probably accounts for most of the recovery. But there were some basic reasons underlying such a shift in business policy—the reasons behind the orders that made factories start humming again.

First and most important, was the high level of consumer income and spending. These scarcely slipped at all, and when consumers kept right on buying, the stores—and later the wholesalers and the factories—had to restock with goods. Government payments kept money flowing to the unemployed, while the majority who stayed employed got wage increases. And people didn't save the money. They spent it more freely than before.

The government moved strongly, meanwhile, to help turn business around. A burst of new orders for defense products put an end to the lag in that area. Washington also put additional funds into the highway program and helped the states get going faster on schools—and other local construction picked up. Another boost came from new federal aid programs for low-cost housing, which put home builders back into mass production. These steps did much to stem the tide.

Finally, the government handed out a sizeable pay boost to its own workers and committed large amounts to the purchase of crops and certain mineral products. Altogether this was more than enough to turn the tide—especially since consumers could see the tide was turning and had the confidence to spend. Finally, in recent months, business has had to make the switch on inventories and revise its investment plans upward—in order to meet the demand from consumers—plus the increased expenditures for the defense program.

These same forces promise to keep the upswing going throughout 1959. Government expenditures are still rising, as the defense program continues to expand. Construction awards are at an all-time high. Consumer income is still climbing. And in-

IN BRIEF: THE 1959 OUTLOOK FOR FLEETMEN

1. **For fleet operations, 1959 will be a busier year than '58.**
2. **General business is going up—industrial production will rise 9%.**
3. **Inter-city truck traffic will show an 8-10% increase in 1959—bigger in '60.**
4. **Local delivery trucking must rise at least 4% to keep up with retail business and the move to the suburbs.**
5. **There will be new pressure to cut costs, as business tries to improve profit margins. This applies to fleetmen, too.**

ventories are still low, relative to sales. So we are carrying over a lot of stimulus, and as 1959 progresses, we can expect an additional lift from the revival that is now starting in the heavy industries: steel, automobile and machinery. With that, we could have a full-fledged boom.

INDUSTRIAL PRODUCTION: At year's end the index of industrial production (1947-9=100) stood around 142—up from the recession low of 126, but still below the old peak of 146 at the beginning of 1958. The soft goods industries (food, chemical and petroleum products, textiles, paper and other packaging), are already past their old peaks. They were the first to start recovering. But the durable goods industries are still lagging.

As 1959 progresses, the pattern seems likely to change. Most of the soft goods lines will show continuing gains—ranging from 3% to 8% over 1958, for 1959 as a whole. But the durable goods industries should be surging ahead with much bigger gains—from 10% to 25% in some lines. Here's the breakdown of gains forecast by the McGraw-Hill Department of Economics for this year:

Steel	26%	Chemicals	10%
Autos	20%	Textiles	8%
Construction materials	11%	Paper	7%
		Petroleum	4%
Machinery	8%	Food products	3%

With this kind of variation, the operations of a particular truck fleet will clearly depend on its industry. But the overall total for industrial fleets and common carriers will be up significantly, no matter how you figure it.

The upswing may not be as fast as in the closing months of 1958. But if the industrial production index tops 150 sometime in 1959—and it may, since that's only half as much gain as we've had already—then trucking between industrial plants should also top its previous record.

CONSTRUCTION ACTIVITY: Since 1958 has been such a big year for new construction, only a gradual increase is in store for 1959. In home building, which occupies the greatest number of contractors, activity may already be at peak levels. However, there will be more work for heavy construction contractors on highways and other public works—so that over-all requirements for hauling materials and equipment are still on the rise. Perhaps a 3-4% gain will come in 1959 for total construction work, compared with 1958.

Since 1959 construction will not involve as much relocation, it won't have as much effect on long-haul trucking as the 1955 construction boom. It may lead to more competition and pressure for better local delivery by the increasing number of stores in some of the newer suburban areas.

The new highway program will open up many good new plant locations—and also sites for new shopping centers. But actual plant construction along the new highways may proceed slowly. Many companies have anticipated the highway program in locating plants during 1956-58. Others just aren't ready yet to expand along the new routes. So the full effect on trucking is still some time away in the future.

RETAIL SALES: These were the bright spot in 1958. They held up when industrial sales were falling, were already setting new highs by summer. This Christmas has been the biggest ever—easily topping 1957.

For 1959, we can take department store sales as an excellent indicator of the kind of business

What Other McGraw-Hill Publications Predict for the 1959 Economy:

To spotlight the situation during the coming year in certain key areas of the economy, FLEET OWNER asked other editors in McGraw-Hill for their authoritative opinions. Here's what they had to say about their particular industries:

ELECTRICAL WORLD: The electric utility industry enters 1959 with considerable optimism, based on its recession period performance and the outlook for a better economic climate than 1958.

Total industry sales are expected to increase 9.5% over 1958 to 622-billion kwhr. A pickup in housing starts and an upswing in appliance purchases should boost residential sales 9.4% to 176-billion kwhr. Commercial sales will also reflect a healthier climate by jumping 8.5% to 110-billion kwhr. But the biggest boost should come from a 10% gain in industrial energy sales.

CHEMICAL ENGINEERING: In 1959, sales of chemical products will be 8-10% higher than for 1958, profits will come close to the 1957 all-time record, and research expenditures will increase another 10% to top $1-billion for the entire chemical process industries. All indications are that 1959 will develop into one of the best years on record. And watch for another capital spending upsurge by the latter part of the year, sparked by past research.

PETROLEUM WEEK: In 1959, the oil industry will show its first significant gain in demand since 1956. Conservative estimates place total demand at an average of 9,657,000 b/d, an increase of 4.3% over 1958. This will make 1959 the best year on record from the standpoint of demand. But while demand will push upward in 1959, there is expected to be little increase in the total number of wells drilled.

COAL AGE: Present indications are that bituminous production, which reflects the level of activity in industry

that gets delivered by truck. The sales index for these stores should top 1958's recession months by 7% or more during the first half of 1959. And for the year as a whole, a 5% gain over 1958 is a good bet.

Supermarket business, which depends on trucking for its supplies, is very stable—may be up another 2-3% this year, reflecting population growth and the shift to packaged goods.

Consumption of oil and gasoline, which move by truck in the final stages of delivery, is expected to be up 4% in 1959.

Despite these potential gains in volume, retailers are under great pressure to cut costs. Wage bills and rents are rising steadily. Prices of most retail merchandise are being held down. In the drive on costs, delivery—both by suppliers and by the retailers' own fleets—is sure to be one item that gets attention. Most of this stop-and-go driving, as indicated above, will show a modest increase in volume this year—averaging perhaps 4-5% over 1958's figures.

SUMMARY: The outlook for private and common carrier trucking has already begun to reflect the production upturn. The sharp loss of traffic earlier in 1958 has been reversed, and the year as a whole will show only a minor decline from 1957—probably not over 3%, measured in ton-miles.

In 1959 industrial production will be up 9%. But much of the gain will be in heavy industries that are not trucking's prime customers. The gains in light manufacturing (chiefly soft goods) will hot be as large. So although truckers will be helped by better highways and will continue to take business away from the rails—the gain in ton-miles for 1959 may be in a range of 8-10%. This would make up the 3% lost in 1958 and add the 5% a year gain that has been normal for inter-city truck traffic during the period of steady climb.

Looking back, in 1954—a milder recession—traffic dropped only 2%, then recovered about 5% in 1955. This time the swings have been sharper—so could easily produce an 8% gain next year. And just as in 1955-56, the 1959 upswing should continue strongly into 1960. On these assumptions, the relationship between industrial production and inter-city truck traffic would work out this way—with trucking continuing to show substantially faster growth than industry generally.

	Industrial Production	Truck Traffic (ton-miles)
1958	—6%	—3%
1959	+9%	+8-10%
1960	+5%	+8-10%
Total increase 1957-1960	+8%	+13-17%

Stop-and-go trucking, which includes most of construction, wholesale and retail trade, food distribution, oil, electric and other utility services—as well as post office and other government vehicles—does not reflect the swings in general business. It went down little, if at all, in 1958. In fact, an accurate figure might show 1-2% increase. But costs were up and profits down in many of these fields. In 1959, these industries will add more vehicles and carry a moderate increase in loads, to keep up with the steady increase in population, suburban living and preference for packaged goods. The gain in volume may average 4-5%.

The most important development in this type of trucking will be an increased effort to reduce the costs of fuel, maintenance and idle time, as the trade and service industries are definitely having an economy drive to restore their profit margins.

—particularly steel and power—will not exceed 450-million tons in 1959. This compares with under 405-million in 1958 and a "normal" of over 500-million. Anthracite in 1959 should run over 20-million and perhaps could reach or exceed the 1958 total of 21-million plus. The production picture is definitely good.

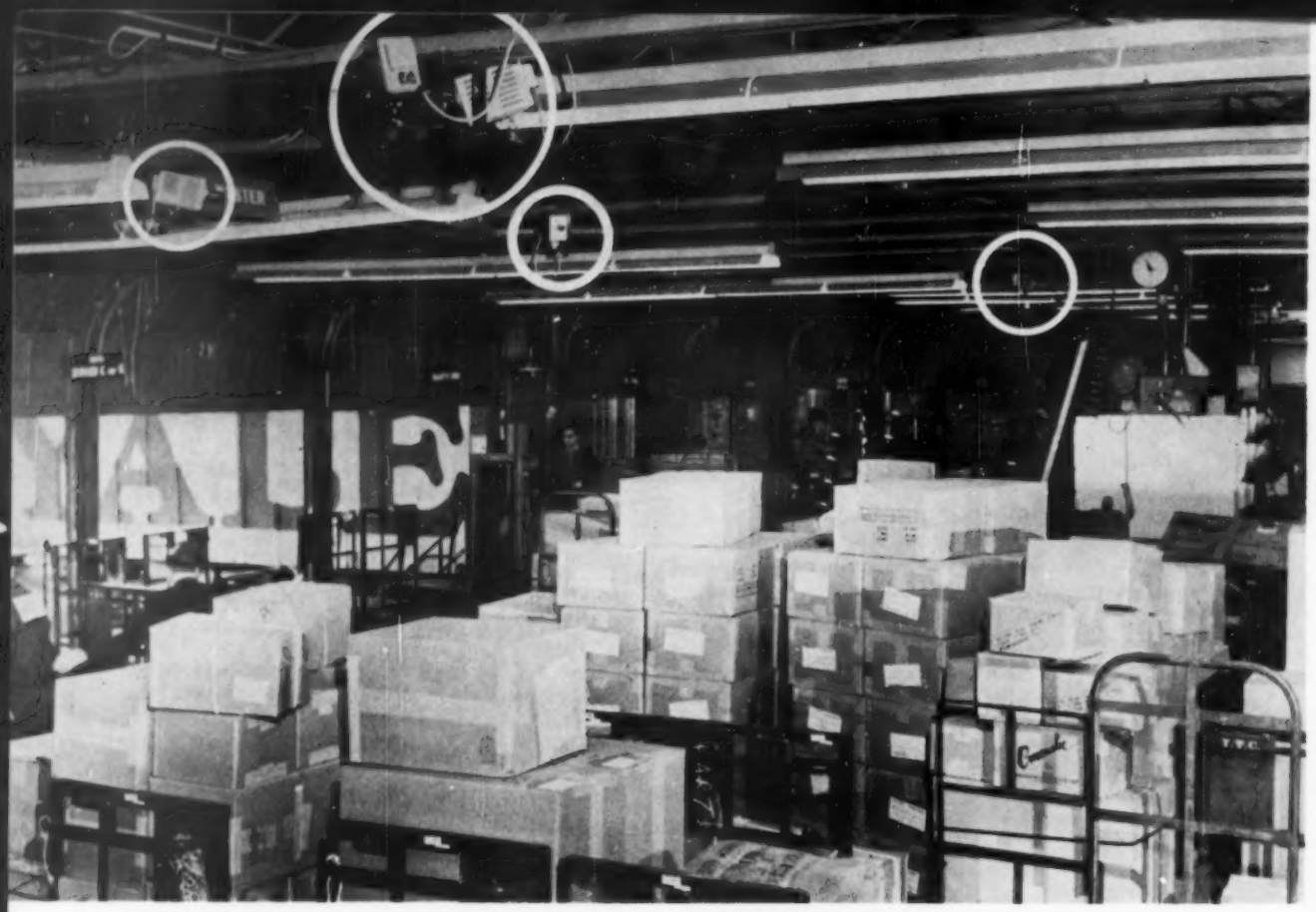
Another wage increase is in the cards for 1959, increasing the pressure to keep cost and quality in line with modern, high-capacity equipment and methods. Transportation equipment is the key to efficiency, accounting for one quarter of the industry output.

FOOD ENGINEERING: In 1959, the food and beverage industry expects to set another sales record, with a gain of at least 5% over the $77-billion estimated for 1958. Look for widespread efforts to cut delivery and long-haul transportation costs as manufacturers sharpen efforts to increase marketing efficiency. More highly mechanised warehousing and faster loading-unloading of trucks will be part of the picture. Quicker delivery to low-inventory supermarkets will be a competitive "must" for food people in '59.

ENGINEERING & MINING JOURNAL: Copper is much more sensitive to economic changes than other large-tonnage metals such as steel and aluminum. Price fluctuations during the last 10 years have shown this clearly. Study of well-established cycles in copper marketing indicates:

Copper started to recover from the recent recession about mid-1958, when world consumption exceeded world production. This signalled a steady improvement in prices from about the 24¢ level to the 30¢ range. A survey of all major U. S. copper producers in late 1958 by Engineering & Mining Journal reveals that most companies expect 1959 sales of copper to be 15 to 20% better than in 1958. Part will be due to increased tonnage sold, and part to more favorable prices, probably in the 28-32¢ range.

On an over-all basis non-ferrous metal producers estimate that metals sales will be about 15% higher in 1959.



OUT ON THE DOCK, fixed cameras (circled) are focused to cover entire area. Overhead mounting gives unobstructed view of busy loading area, despite piled-up cargo. Each camera has its own monitor in the dispatcher's office.

IN THE OFFICE, dispatchers can follow entire operation at a glance. Each monitor shows four to eight bays. Band across screen gives number of bay. Cards beneath monitors show status of vehicle in the bay.

← Closed Circuit TV—How a New Trucking Tool Proves It Can Pay

CLOSED CIRCUIT TELEVISION has come to the trucking industry with a bang—a $30,000-installation that is expected to pay for itself in 18 months' savings for the New York terminal of Yale Transport Corp. Ten TV cameras, each with its monitor in the dispatcher's office, are making new speed and efficiency possible on Yale's 43-bay dock.

The problem Yale had, in its pre-TV days, was what to do with the dispatcher's office. As the fleet grew, the 500 sq ft consumed by the office became more and more valuable. And, in addition to holding up expansion, the office failed to do its job. Eight bays could not be seen at all from the dispatcher's office, and another 12 were only barely visible from the inside.

It was obvious that the office had to go, but the only place open for it meant zero visibility. The answer, vice president Gerald Eskow realized, was industrial television. Experts were called in from Dage Television, a division of Thomson Ramo Wooldridge Inc. and the installation was cooperatively planned and installed.

Now the office is out of the way and the dispatcher can watch the entire operation at all times, without straining to see, giving directions to each driver and dock crew.

Here's how it's done: Ten completely self-contained, automatic TV cameras are secured to beams above the loading and storage areas. Nine of these cover from four to eight of the terminal's bays. The tenth camera, centrally located, is remote-controlled by the operations office dispatcher. This camera can be pointed in any direction; the operator can select any of four lenses to get different views of areas not covered by the fixed cameras. This "pan and tilt" camera doubles as a replacement, should any of the fixed cameras fail. It rotates a full 360 deg.

TWO-WAY COMMUNICATIONS setup keeps loading crew in constant contact with billing section as well as dispatcher. Headset phones allow rapid transfer of information.

The dispatcher can see, from the office, on his monitors, every phase of the operations, can tell just how long it will be before one of the trailers has finished loading, and can direct another driver to move into position over a two-way radio hookup. He can also speak to the men on the docks over a PA system.

As the new truck pulls in, he fills out a location identification card which is inserted in his dispatch board opposite the number of the appropriate bay. Different cards show him at a glance whether the vehicle is being loaded or unloaded. Since he has a complete picture of activities on both the receiving and dispatching docks, he can coordinate their work to prevent freight piling up at any point in the terminal.

There are other benefits, too, Yale has found. For one, the present operation is safer. Since the dispatcher can see the truck clearly, he can make sure that all dockmen are out of danger before telling the driver to move out.

Security has been increased in the terminal since the TV set-up was installed. In addition to the regular guards making their rounds, another can keep an over-all watch from the dispatcher's office, can see if any of the others are in danger.

How's it working? Best answer to that one is to take a look at Yale's plans for the future. Supplementary cameras are slated to be installed in the surrounding area, giving a view of the yard, approaching streets, etc. Traffic tie-ups can be allowed for in dispatching. And there are plans to install TV in Yale's other terminals, too.

The main reason for Yale's enthusiasm is speed. "The new system, says president Benjamin Eskow, has actually cut minutes from the average time a trailer sits at our dock. . . In our split-second type of operation, nothing could be more important."

Interview: Inside Story Behind Detroit Diesel's New Engines

A completely new line of diesels is being introduced this month with one object in mind: to capture a major share of your engine investment of the future. But what are you being offered?

To get the answer, Fleet Owner's Holger Ridder sat down (left) in an exclusive interview with top officials at GM's Detroit Diesel Division. Speaking with general sales manager Hunter, Ridder asked . . .

THE BACKGROUND IN BRIEF:

The announcement, a few days ago, that Detroit Diesel was going into the open market with a completely new line of engines didn't come as any surprise to Fleet Owner.

WE FIRST HEARD of the developments underway at Detroit Diesel in February, 1958, and got confirmation when we were working on the story from GMC Truck and Coach Div., in your November '58 Fleet Owner. GMC planned to use some of the new diesels in models it was then readying for introduction. But, at the time, the story was hush-hush at Detroit Diesel.

THEN, IN OCTOBER, Detroit Editor Holger Ridder was able to get Detroit Diesel's agreement to give Fleet Owner an advance inside look at what was coming—on the agreement that the story be held until January.

RIDDER GOT THE STORY later that month in this exclusive interview with top officials Robert E. Hunter, general sales manager; W. B. Oakley, engine application engineer; Frank Sinks, truck and coach applications engineer; and Kenneth L. Hulsing, chief design engineer of the project.

Mr. Hunter, did you design your new 53 and V-71 series with any specific market in mind?

"No, our new series of engines was designed to broadside the entire diesel engine market. Up until now we have had an in-line series of engines, the 2-71, 3-71, 4-71 and 6-71 as basic engines. We have also had a 6-110 series which has some truck applications. With these engines we covered about 1800 different applications, but there were power areas which we felt we were not covering adequately, including use in trucks.

"This new concept in power gives us the only all-purpose power line, having various sizes, shapes and horsepower output with only three cylinder sizes. With addition of the new line, we feel we can meet virtually every fleet owner's individual power needs."

Aside from expanding your line to cover the entire market, what else influenced your design?

"Let's go back a bit. Two years ago we brought out the 4-71E and 6-71E to expand our coverage of the truck market. We achieved better engine economy by improving the engine breathing. This was accomplished by going from two to four exhaust valves per cylinder. We cut the speed of the scavenger blower and enlarged port areas in the liners. We also improved the engine's life.

"Looking down the road, we decided the ultimate answer was to get greater horsepower out of a shorter engine. We came up with this new V de-

"Our new series of engines was designed to broadside the entire diesel market"
HUNTER

"With this new series we have engines to meet demands of any geographic area"
OAKLEY

sign which did just that. Very simply, we have taken two basic 3-71 engines and made them into a 6V-71. And where that kind of power is needed, we can now offer an 8V-71 for truck use."

Will the new series in any way obsolete the old basic line?

"Definitely no. When we went into the design of this new series, we kept one thing in mind—we wanted to be sure when the new engines came out they wouldn't put a curse on existing engines in our line, because we intend to go on producing them as we have in the past.

"We wanted to make sure our customers would not have to scrap their present parts inventories or have to add to them substantially because they were buying a new series.

"Briefly, the new series affords the customer lower operating costs for one basic reason: Greater interchangeability because the V-71 series will make use of parts we already have in production. Take these four points as an example:

1. Cylinder heads will be interchangeable with present 71 engines.
2. Piston and cylinder liners are identical and interchangeable with the present 71E.
3. Blowers will be in two sizes, only—six and eight-cylinders.
4. Gear trains will be interchangeable in all 71 series engines."

What about the 53 series?

"The 53 series will follow the same pattern as the 71, and in addition will use some 71 parts and sub-assemblies such as the injector shell.

"Someone operating trucks using 100% Detroit Diesels now, who wants to get into the V series, will have to increase his parts inventory by only 10% when he makes the change.

"If a fleet operator is not 100% Detroit Diesel equipped, he will still come out ahead because he will find the cost of GM parts will run about 50% lower than competition."

Can you go into more detail?

"The 71 series is about 20 years old, with improvements made each year. In the new V series we retain the same bore and stroke and cubic inch displacement of 71 cu. in. per cylinder. In the new 53 series, we have merely scaled down the 71 series. It's actually just a smaller 71. This series adds four new engines to our line—the 2, 3, and 4-53 in-line and the 6V-53. This is in addition to the four new 71 engines.

With only three cylinder sizes, how did you get into the V program without a lot of new parts?

"With modifications, we took our basic 71's and, for example, in effect put together two three-cylinder engines to make a 6V for trucks; two four-cylinder engines for a V-8; two sixes to make a V-12; two V-8's together in tandem for a V-16; and finally two V-16's as twins for our V-32. So now we have V-sixes, eights, twelves, sixteens and thirty-twos.

"Incidentally, the 3-53 in-line engine is being worked in cabs, pick-up trucks, etc. This is par-

ticularly ideal for overseas trade. Horsepower maximum for the 3-53 will be about 97. Our 2-53 in-line is designed for the volume forklift truck market; the 6V-53 for trucks and buses."

How will the new line of engines benefit the fleet operator?

"Where trucks get squeezed on space limitation, the new V series could very easily solve many problems. For example, a 6V-53 is only 34 in. long; a 6V-71, 42 in., as compared to a 6-71 in-line with 53½-in. length. Actually, if a trucker needs that kind of power, he can go from a 6-71 in-line engine to an 8V-71 and contain it in the same engine compartment length. If the trucker happens to be using a 6-110 engine now, he could go up to a 12V-71 and still save 2 in.

"In addition, there are weight savings involved which enable the fleet operator to carry bigger payloads by moving weight up to the front axle. We feel our present two-cycle engines have more horsepower per pound than naturally aspirated four-cycle engines. The new V engines, with a maximum of 55% decrease in pounds per horsepower (the average decrease is 20%) will have an even greater advantage over presently available four-cycle competitive engines."

Will aluminum engines increase in the near future?

"Definitely. We have built aluminum engines for years but now we propose to push it very hard, especially where weight is a prime factor, and that obviously will include trucks. The tooling for our new engine line is so designed that we can machine either cast iron or aluminum blocks.

"Conservatively, we estimate that our new V engines in aluminum will result in a weight savings of about 20% average for the V-71 and V-53 series. Over 16% reduction can be realized by using aluminum in our 53 in-line engines."

What factors do you think will allow you to meet competition?

"With our new engine lines, we expect to get down into the lower horsepower and gasoline engine range. Where space is a prime factor, our new V-71 engines will become most important. While the maximum horsepower is lower in our 53 series, we have designed the engines to provide torque in the intermediate and low ranges where it is most needed. This, plus design improvements, will give the fleet operator improved fuel economy.

"With our new series of engines we can now offer horsepower, without turbocharging, which will meet demands beyond the 300-375 hp range. Prior to our new series we had three engines covering the range of 150 to 300 hp. Now we have six, which gives the fleet operator more flexibility and economy in selecting his power plant."

What price range will you cover?

"Our present list engine price ranges from about $1750 up to $8000 on single engines. With the addition to our line, the price range will go from $1300 as high as $12,000 to $15,000."

Mr. Oakley, why would a fleet operator want the V instead of the 6-71 with its higher hp?

"Two primary reasons. He might need a shorter engine to move payload further ahead and increase revenue. And with the 6V-71, despite its lower horsepower, he would still have the torque he needs at the low end of the scale.

"It boils down to what the man wants to save—time, money or both. We ran some tests in Arizona. Using comparable trucks we found only a 5% gain in performance of a 240 hp engine allowed us to save 15 minutes. But we got 11% less miles per gallon of fuel and experienced more tire wear with the 240 hp engine than with the 170."

Will turbo charging be available?

"Turbocharging would probably not be economical on an engine smaller than the 6V-53."

Why would a fleet owner want the 6V-53 engine?

"This engine has a lower torque curve and this allows us to use a cheaper transmission—a good transmission but one much less costly to produce. So, the operator saves on initial investment. Also, the 6V-53, a higher speed engine than the 6V-71, is much smaller and lighter. It may well mean added payload and revenue."

What is the weight and horsepower rating of the 6V-53?

"It is rated at 190 hp intermittent and weighs 1340 lb all told."

Mr. Hulsing, can you give me a brief chronology of the development of this new engine series?

"Yes. In 1937 we introduced the two-cycle series 71 diesel engines. Over the years the 2, 3, 4 and 6-71's were complemented by Models 6-110 and 4-51 to give single engine coverage from 33 to 325 hp, and multiple engine coverage up to the 875 hp of the well-known 6-71 quads.

"We were among the first to turbocharge on a commercial scale. The net result of turbocharging was to extend our coverage to 375 hp in a single engine and to realize some economies of operation in truck and marine applications where high specific outputs were advantageous.

"In late 1955, the truck and coach industry was demanding more efficient and durable engines in order to offset to some extent uncontrollable rising costs of operation.

"Our answer was the development of the 71E engine—'E' standing for economy. This was followed by turbocharging, and now we have the new series which gives us an all-purpose power line of two-cycle V's and in-lines."

Did you have some basic requirements in mind when you embarked on the new engine program?

"The first basic requirement was that a broad power range would be covered without turbocharging, but that all the new engines could be turbocharged when required.

"A second requirement was that the new engines would be as versatile as the present 71's.

"The third was that the new engines be conservatively rated, and therefore, give life between overhauls equal to or better than present production engines. The result is that we now offer a power range from 24 to 1292 hp."

What will the use of aluminum mean engine-wise?

"A weight reduction of about 20% which is possible with an aluminum block, flywheel housing and various small castings."

Will turbocharging give you more power per pound?

"Yes it will. We believe the ultimate would be about a 40% increase in horsepower per pound over the basic cast-iron engine."

What advantages do you think the new engines offer?

"Well, the new 6V-71 is 40% shorter and 15% lighter than the in-line 6-71 and is particularly suited to new truck design trends. Between the 6-71 and 6-110 models, the new 8V-71 will provide for many applications a more compact, higher-powered engine than is now available. The in-line 2-53 offers a small, low-cost engine for applications below the 2-71 power range, such as lift trucks, small generator sets and the light tractor field.

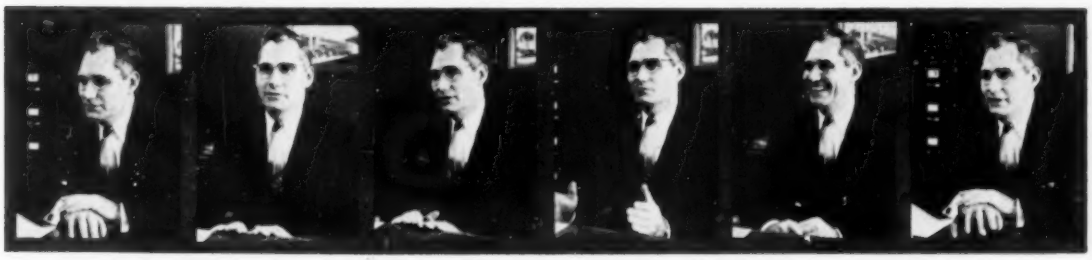
"The new 6V-53 is a small, high-speed engine with power intermediate between the 4-71 and 6-71, particularly suited to medium truck and marine application. The 2800 rpm ratings of the 3, 4 and 6V-53 match them with gasoline competition."

How did you accomplish the reduction in blower drive ratio?

"On the in-line 71E, a major reduction could not be achieved by gear train changes without a revision in gear centers which would destroy interchangeability of timing gears, flywheel housing and blower components between the standard and E engine. So, we decided to incorporate a set of reduction gears within the blower itself. The reduction chosen changed the blower drive ratio from twice engine speed to about 1.7 times engine speed. A reduction of 18.5 hp (57%) in power required to drive the Model 6-71 scavenging blower was achieved at rated speed, still maintaining more than ample air delivery."

Why was the fire ring added?

"To provide a sharper port cut-off in the E engine. It provides maximum possible effective compression and expansion strokes for any given inlet port height. Also, as the piston approaches upper dead center, all air in the cylinder is trapped above the fire ring and is readily available for combustion. And it reduces the cylinder wall area exposed to the burning mixture."



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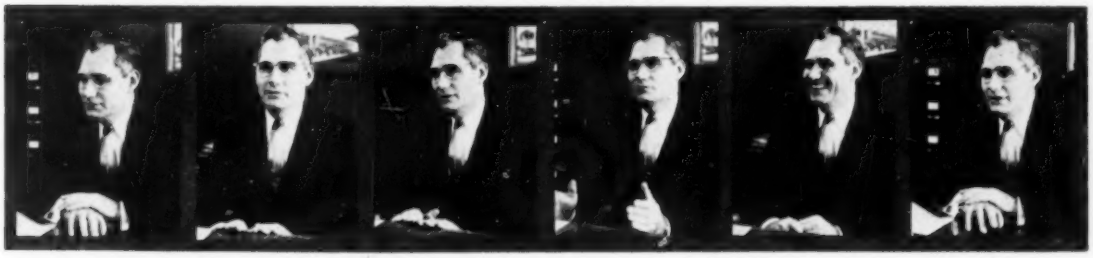


"The new series gives us an all-purpose line of two cycle V's and in-lines"

HULSING

New Prestomatic Transmission—What It Has for Fleets

SIMPLE, DURABLE, AND INEXPENSIVE—that's Presto-Matic, says the Dana Corp. This new clutch control system, jointly announced last month by Dana and the Diamond T Truck Co., marks Dana's entry into the semi-automatic heavy-duty truck transmission field. This new device, available on all Diamond T diesels, eliminates the clutch pedal with no sacrifice in fuel economy. For the inside story on what this means to fleet owners, here's an exclusive interview between Ed Eckert, FLEET OWNER's technical editor, and Jack Martin, president of the Dana Corporation . . .

Mr. Martin, why did Dana decide to move into the semi-automatic transmission field?

"It's a perfectly natural development. The Dana Corporation has long made synchronized transmissions. Synchronizing the gears was really the first step towards automation because it made it a lot easier for the driver to shift gears. Presto-Matic just goes one step further by eliminating the clutch pedal. This offers decided advantages."

What are these advantages?

"First, the driver is relieved of the physical effort of operating the clutch pedal. He's able to concentrate on his driving. Now keep in mind, Presto-Matic does not select the gear ratio for him. The driver always has control over his transmission. When he wants to shift, all he does is put the shift lever in the range he wants. As he touches the knob on the lever to do this, Presto-Matic takes over and does the de-clutching and re-engaging automatically.

"Because it does this so fast and so easily it's no trick at all to maintain proper engine speeds while shifting and there's less chance of lugging. Clutch life will be increased, because engagement is actually controlled by engine speed. Engagement is always smooth, and this as a result, naturally means less wear and tear on drive lines and the rear end."

Just how does Presto-Matic work?

"An air cylinder replaces the clutch pedal, a solenoid valve directs air to the cylinder, and a diaphragm-operated pilot valve controls air pressure in the cylinder during the clutch engagement cycle. This last part we call the 'brain-box' because it senses changes in engine speed through a static connection to water pump casing and controls clutch action accordingly. Just touching the knob on the shift lever puts the system in operation and clutch release and engagement is fully automatic."

INTERVIEW with Dana president Jack Martin (left) at announcement of the new Prestomatic got FLEET OWNER technical editor Ed Eckert the behind-the-scenes story.

What happens when you want to stop?

"When coming to a stop, the clutch will automatically disengage at around 500 rpm engine speed. When the driver shifts into low gear, he can inch along simply by accelerating engine as needed. Amount of acceleration will automatically engage and release clutch and result in smooth inching. For emergency stops, where engine speed drops faster than regular water pressure, the clutch will release immediately at any rpm below the pre-set idle speed."

What happens if anything goes wrong?

"We feel that Presto-Matic is an additional safety feature for the truck. You can't move the vehicle if there's no air available. And if air is lost on the road, the driver isn't going any place anyway because he has no brakes. We designed it to 'fail safe.' If something goes wrong with the system, the driver can still have manual control over shifting."

What about maintenance?

"A screwdriver and an adjustable wrench are about all you need. The component parts are small and simply constructed. Any mechanic can make repairs. Of course, it's best to simply renew a faulty component on a unit-replacement basis."

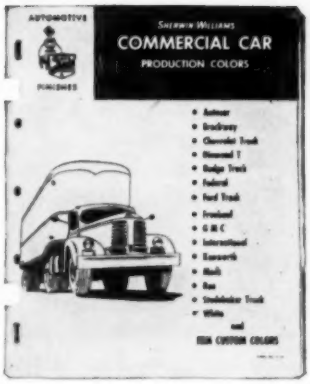
250 SHORT CUTS

to faster fleet refinishing...

Here's handy help in ordering finishes to match factory production colors on all makes of commercial cars!

This 32-page catalog of Sherwin-Williams Commercial Car Production colors contains color swatches and catalog listings of all popular commercial car colors available in KEM Enamel factory packaged colors or as custom-mixed quality enamel or lacquer colors. Cross-references simplify ordering — actual color samples aid selection of new color schemes from a wide choice of conveniently available standard colors. This comprehensive manual also contains full data on recommended air-dry and bake systems, metal preparation, etc.

If your operations involve refinishing or color styling of commercial fleets, a copy of this up-to-date Commercial Color Catalog O-149 will be supplied for your use without obligation. Please write on your company letterhead to The Sherwin-Williams Co., Automotive Division, Cleveland 1, Ohio.



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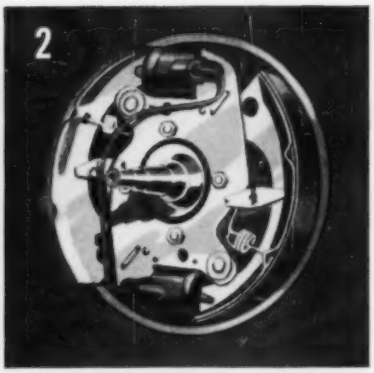
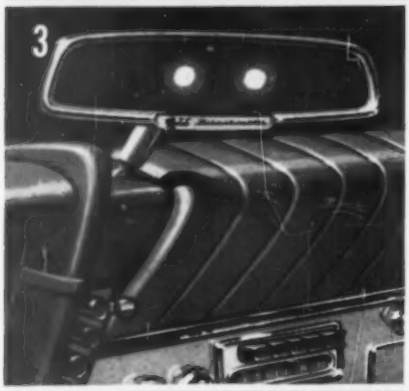
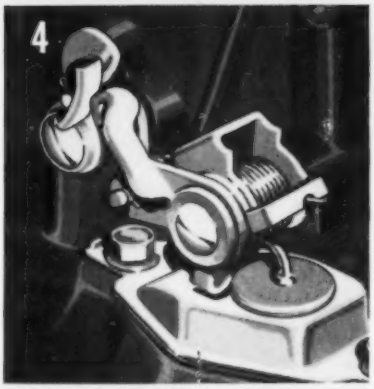
AUTOMOTIVE FINISHES

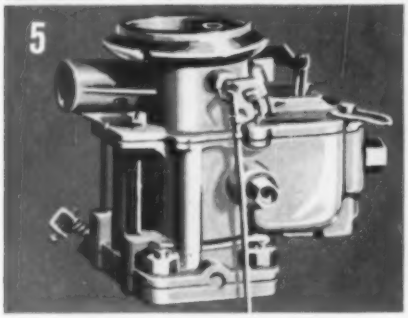


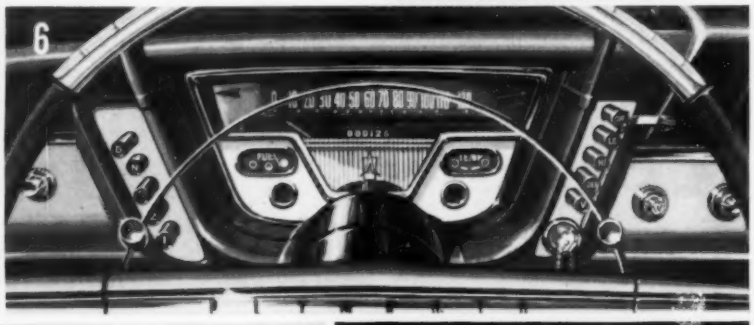


Treat your fleet to '59's finest features...

in money-saving PLYMOUTH!







1 New Swivel Seats* boost driver morale, impress customers.

2 Total-Contact Brakes provide surer stops; linings last longer, too.

3 New Mirror-Matic* rear-view mirror automatically dims glare.

4 Thrifty Fuel-Saver Choke, standard on V-8s, pares fuel cost.

5 3-stage carburetor saves up to 15% on gas in middle speed range.

6 Push-Button Control Center for driving, heating, ventilating.

7 Torsion-Aire Ride means smoother riding, less fatigue. No extra cost.

8 Automatic Beam Changer* dims headlights for greater safety.

*Optional, low extra cost. Swivel Seats standard on Sport Fury

See your Plymouth dealer today for the low-price car that's ...Today's Best Fleet Buy...Tomorrow's Best Fleet Trade...

Plymouth

SPRAY PAINTING FLEET OWNER

Here's Your Guide to Better Spray Jobs in the Shop

Did you ever stop to watch a master painter handle a spray gun? Looks easy, doesn't it? In fact, it looks as though just about anyone could pick up a gun, point it, press the trigger and put paint on a surface. But don't be fooled. There's a lot more to spray painting than that. The reason a master painter makes painting look easy is because he knows all the rules—and he follows them every time.

Maintenance painting or vehicle refinishing . . .

. . . present the same problems. The same basic ground rules apply. First, the surface must be prepared. How much work goes into this step depends entirely on what you want in the way of a final finish. Second, the paint is chosen and mixed. And this requires a knowledge of what materials are available, how and where they can be applied.

Picking up the gun is the third step. But to use it properly and efficiently takes practice, plus a knowledge of the mechanics of the gun and the associated equipment. And finally, the painted surface must be allowed to dry under the proper conditions. Many finishes have been ruined simply because of incorrect temperatures or lack of ventilation during the drying process. In any event . . .

. . . you must understand the basic principles

There are many variations in the techniques and methods used. Some are highly specialized, some are quite simple. But they're based on a sound knowledge of the basic problem.

That still leaves the question, "How do you do it?" You'll find the answer in this special report, the basic principles for a top-notch spray painting program. FLEET OWNER gathered this information together for one reason: to make it possible for you to get top work in the least time, using modern, high-speed methods without sacrificing quality.

Spray Painting: First Step

Craftsmen know that 90% of the troubles that show up in a spray-paint job are "built in" by hurrying through surface preparation work. But you don't have to sacrifice speed to get a good job if you follow these time-proved methods.

THE START DETERMINES THE FINISH in spray painting operations. And you can't afford to cut any corners here. Even if you're setting out on a straight maintenance paint job, such as doing the overhead structural members in your shop, some surface preparation will be needed. It may mean a little spot chipping and priming of bad areas, a thorough hosing down with water, or simply a dust-off with compressed air. It all depends on the condition of the surface and on what you want in the way of a final finish.

And if you're refinishing vehicles—where the all-important objective is to produce a high quality finish that will stand up under over-the-road operation—proper surface preparation is a must.

For vehicle refinishing, preparation starts with a careful examination of the surface for flaws. Compounding and polishing out a typical small area is recommended. And use a magnifying glass. No new paint job will stand up over a checked film, even though the checks or cracks are invisible to the naked eye.

And sometimes the surface may appear sound, yet gouging or scraping with a pen knife through to the bare metal reveals a weak, crumbly film. Good judgment will invariably tell you whether the surface is in good or poor condition. But if there's any doubt, the only safe way is to completely refinish the entire area.

For surfaces in good shape, best starting point is a good old-fashioned wash to get rid of road dirt and scum. Plain water will do but many painters prefer to add a detergent. Detergents should be used in moderate amounts and the job should be followed by a thorough rinsing with clean, plain water to remove the detergent.

Next step is to get rid of all wax, silicone, oil and grease, by using a solvent cleaner *made specifically for this job.* Gasoline, turpentine, lacquer thinner, etc., should never be used. Some waxes are insoluble in gasoline; lacquer thinner is too strong for the job. Then, too, gasoline, turpentine, and other oily commercial solvents will leave a film behind that will ruin the finish. And, when you're using solvent cleaner, use plenty of clean cloths. Work on one small area at a time, wiping it thoroughly dry before proceeding to the next area.

Sanding comes next. This is necessary to reduce the final total film thickness, remove any case-hardened film surface, and to smooth out imperfections that may have developed. Also, the sanding will produce a slightly roughened surface that will produce better adhesion between it and the next coat of paint.

Whether you're power sanding or hand sanding, you get several distinct advantages when you use water. First of all, it eliminates dust. And it will result in a smoother finish, at the same time it cuts sandpaper wear. Then too, with dry sanding there's a tendency for the paper to clog. This can result in surface gouges that require additional time to remove.

Actually, the sanding process can be carried out in one operation using #320 grit paper. This will produce a generally acceptable surface. Using #360 paper will produce a much better finish. But, if top quality work is the objective, a two-step operation is recommended. Here, first sanding is done with #240 grit, for example, followed with finish sanding with #400 grit.

But regardless of whether you're sanding by hand or with power—with or without water—let the paper do the work. Use light, uniform strokes and don't gouge or press too hard on the paper. When hand sanding, use a pad. Without it, fingers tend to cause gouging. Bearing down on the paper only introduces sand scratches.

If you cut through to bare metal because of a thin paint film or removal of a localized rust spot, the edges surrounding the bare spot must be "feather-edged." This means sanding around the spot with #400 grit or finer until the edge is non-detectable by touch. Remember, the slightest edge will show through the top coat.

When sanding is complete, entire area should be washed with solvent-type cleaner or water. After allowing for thorough drying, treat the exposed metal areas with a phosphate-type metal conditioner. This helps to prevent rust formation and will insure good adhesion. When it has dried, apply a primer or surfacer to these areas and you're ready to paint. Before applying the color coat, it's good practice to wipe the surface with a clean, lint-free rag, taking great care not to touch the surface with your hands, gloves or clothing.

Is to Prepare the Surface . . .

If surface is in poor condition, and existing paint has to be removed down to bare metal, there are several ways to do the job.

For small areas, power sanding is probably fastest. For large areas, such as truck or bus bodies, alkaline solutions called strippers can make fast work of the job. Keep in mind the type of surface you're stripping, however. Zinc, aluminum, body deadeners and other materials can be damaged by alkaline solutions. But there are specialized strippers available for almost any application. Safest way is to consult one or more of the many reputable manufacturers of such products. Then you'll be sure of getting the right stripper for the job.

Solvent-type paint removers may also be used on large areas. They usually contain a quantity of wax that films out on application and seals in the solvents so they can do their work of removing the paint more effectively.

Sandblasting is another method for handling large surfaces. It does a thorough job and can be used on any kind of surface. But it's messy and has to be carried out in an area remote from where you're doing your spray painting.

When old finish has been removed down to bare metal, a clean-up sanding operation is usually needed. A fine grit disk can be used for this, or sometimes steel wool will do the job. Don't use steel wool on aluminum, however. Experience has shown that tiny particles of the steel tend to become imbedded in the surface. These become local corrosion cells that break through and ruin the finish.

After the clean-up operation, wash down the entire area with solvent-type cleaner to remove all wax, grease or other residues. If chemical type remover was used on the paint, a thorough water wash should precede the solvent wash.

Final step in preparing the bare metal surface is use of a phosphate-type metal conditioner. As soon as treated surface has dried thoroughly, first undercoat goes on. This should be applied within 30 minutes of final cleaning and conditioning treatment for best results.

. . . then you must choose the right paint

Paint is simply a broad term that describes many finishing materials with varying properties and uses. Enamels, lacquers, sealers, primers, etc., are all paints in the broad sense, and they all are similar in that they are made up of three basic components.

The primary part is called pigment. Pigment gives the material its color and hiding power. The pigment is contained in the second part, the binder or vehicle which firmly attaches itself, along with the pigment, to the surface being painted. The third and last component is the thinner or solvent.

Thinners are a blend of solvents used to make the paint workable for either brush or spray application. After paint is applied to a surface, the solvent or thinner evaporates completely, leaving the binder and pigment to form the hardened paint film on the surface.

For best results, the thinner must be chosen to fit the job. There are a great many available on the market and they differ chiefly in their evaporation rates and their ability to dissolve and thin the paint binder properly. But the differences are important. A thinner that works well in one kind of paint may be completely incompatible with another. Trouble is, this may not be immediately apparent when mixing, but will show up after the color coat is applied. Best way to avoid trouble is to use a top quality thinner recommended by the paint manufacturer.

Enamels and lacquers differ chiefly in the way they dry. Air-dry enamels, for instance, require solvent evaporation plus absorption of oxygen to obtain film hardness. Lacquers, on the other hand, require solvent evaporation only to attain final film hardness.

Enamel dries slower than lacquer but it dries to a full gloss and needs no polishing. In fact, an enamel should not be rubbed or polished for at least thirty days, and then only slightly. Lacquers dry quickly . . . just as soon as the solvents evaporate from the film. When properly applied, lacquer will dry to a high gloss, but it is usually necessary to rub and polish a lacquer to produce the highest possible lustre.

Now that the surface has been prepared and the paint chosen, you're ready to apply it. On the following pages you'll find tips on how to set up and handle the spray gun for best results ⟶

SPRAY PAINTING . . . *continued*

How to Make Your Spray Gun Give

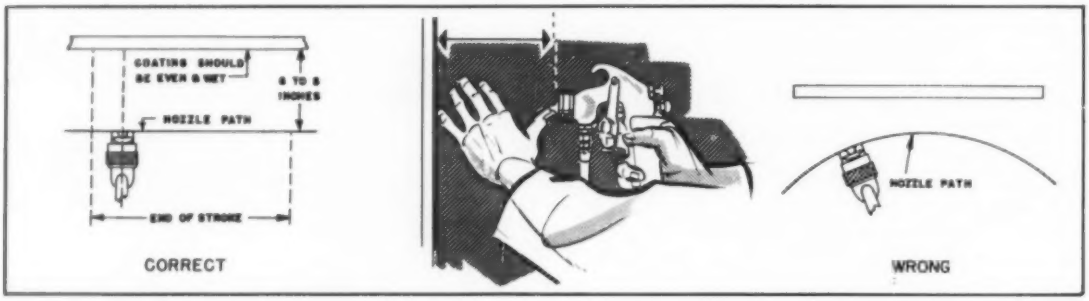
AFTER YOU'VE TAKEN the trouble to do a good job on surface preparation, don't nullify your efforts with poor spray gun technique. First of all, before you pick up the gun, take a moment to plan exactly how you're going to go about the whole job. Then, check your spray pattern on a test panel. Correct pattern, along with some bad ones, is shown at bottom of page.

Don't wave the gun around as though you were watering the lawn while you are spraying. Point it straight at the work, as shown below and keep it that way, triggering the gun just before passing over the surface and again just after leaving it. Triggering in this way will help prevent build-up of paint on the air-cap.

Proper adjustments on the spray gun are important. The fluid needle valve, for instance, should be set so that it opens after the air valve. This will allow full regulated air pressure to develop at the spray head, insuring proper atomization of the paint when fluid valve opens.

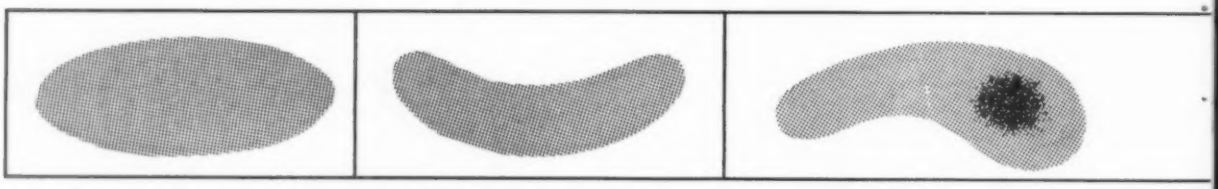
Low air pressure at the gun is the key to good finishes. Properly reduced paints can be atomized perfectly with 30 to 40 lb air pressure at the gun head . . . and this minimizes paint waste and dry over-spray. High pressures cause solvents to evaporate before paint reaches surface. As a result, paint will not level properly. And because of this you'll have such problems as orange peel, poor gloss or dullness of topcoat.

Don't soak entire gun in solvent. This can ruin valve stem packings and cause gun to spit. Use proper tools when disassembling gun, and never use anything harder than a wooden toothpick to clean holes in spray cap.



SPRAY PAINTING TECHNIQUE requires that gun be held 6 to 8 in. from surface to be sprayed (left). Simple way to get proper distance while spraying is to use span of hand (center). Move gun with an even stroke and keep it at the uniform distance from work. Arcing the gun (right) results in uneven coating. Also, don't tip gun in relation to surface. This will cause one side of pattern to hit surface from shorter distance and cause more material to be applied at this point. Learn to trigger the gun. That is, at the end of each pass, release the trigger momentarily and immediately pull it again before making the return pass. You'll find this helps prevent clogging of sprayhead.

Patterns show how your spray equipment is working

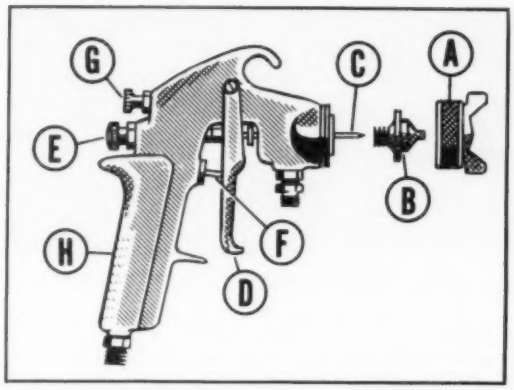


GOOD PATTERN should be oval shaped with a spread of about 8 in. to obtain maximum coverage per stroke. Round patterns may also be used for special work such as touch-ups.

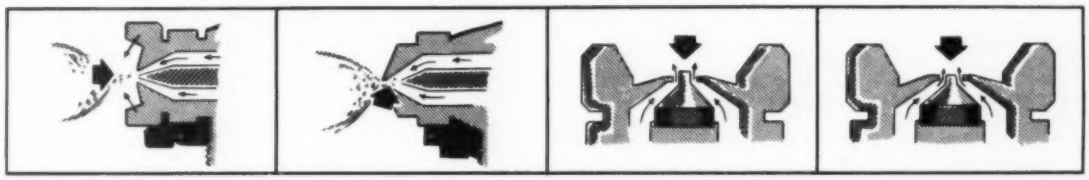
DISTORTED PATTERN is due to plugging of horn hole in air cap or at fluid tip. If pattern reverses when air cap is reversed, cap needs cleaning. Clean with thinner or wooden toothpick.

HEAVY-ENDED PATTERN is due either to damaged fluid tip or air restriction at face of air cap. Test with air cap reversed to determine which. Clean as before or replace damaged parts.

You Top Work on Every Paint Job



SPRAY GUN PARTS: (A) *Air-cap* screws on head of gun, has drilled passages in the horns, or wings, to direct compressed air so as to form proper spray pattern. Cap is easily removable and adjustable so that it can be changed for various nozzle set-ups. (B) *Fluid nozzle* is screwed into gun body and contains the seat for fluid needle valve. Nozzle must be screwed in very tightly and seated properly to prevent air leaks that cause faulty spray patterns. (C) *Fluid needle valve* is usually hard stainless steel that is wear resistant and corrosion proof. Position of this valve controls quantity of paint that will flow from fluid nozzle. (D) *Trigger* operates both the main air supply valve in gun handle and fluid needle valve. Actual trigger travel is dependent on setting of fluid control adjustment. (E) *Fluid adjustment screw* is knurled knob that determines amount of fluid valve opening. Turning it clockwise reduces valve opening. Turn counterclockwise to open. Assembly also contains spring to keep fluid valve in closed position. (F) *Air-supply valve* in body is generally cartridge type, spring loaded and replaceable as a unit for easy maintenance. (G) *Air-control valve,* another knurled knob, operates air control valve in gun head. This controls air to spray head only and is used to adjust to desired spray pattern. (H) *Gun body* may be cast or drop forged. Latter type is preferable because it's practically unbreakable. On some guns, the air cap, fluid tip, and the sprayhead body with material connection are removable as a single assembly. This allows for quick change from one material or color to another. It also makes for easy cleaning.

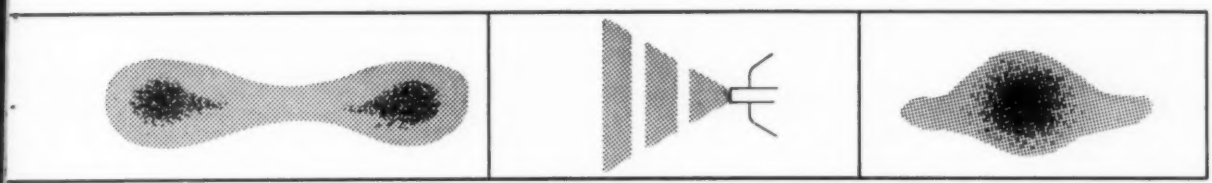


EXTERNAL MIX GUN mixes material being sprayed with compressed air for atomizing, outside the air cap. Gun may be suction or pressure-feed type and it will handle almost any kind of fluid material. It is the only type of spray gun that should be used for fast drying materials such as automotive lacquers.

INTERNAL MIX GUN mixes material being sprayed with compressed air inside the air cap before expelling. Strictly a pressure-feed gun, the effect of hydraulic atomization within the spray head allows use of very low air pressure and volume. Excellent for slow drying, nonabrasive materials such as oil-base paint.

SUCTION FEED GUN utilizes venturi effect of compressed air stream flowing past fluid nozzle tip. This produces vacuum at tip so that the atmospheric pressure in the container forces paint up to the sprayhead. This type gun is easily identified because fluid tip extends slightly beyond air cap.

PRESSURE FEED GUN has air cap that is not necessarily designed to produce a vacuum. The material is moved to sprayhead by means of air pressure or pump. Used for high production painting or when material to be used is too heavy to be siphoned. Tip is generally flush with face of the air cap.



SPLIT SPRAY is heavy on each end but very weak in middle. Will result in streaked finish. Caused by too much atomizing pressure or by trying to get wide fan with thin material.

SPITTING is due to air leakage into fluid passageway. Can be caused by loose connection on cup or material hose, dirt between fluid nozzle seat and body, or by loose fluid nozzle.

SALT-AND-PEPPER PATTERN may be heavy in middle or show unatomized paint throughtout. This can be caused by atomizing pressure that is too low for material being sprayed.

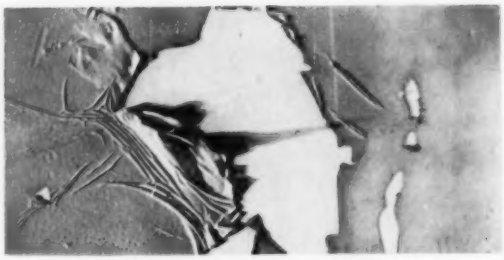
14 Pitfalls in Spray Painting and

NO MATTER HOW CAREFUL YOU ARE in preparing the surface for painting, and no matter how good your spray gun technique is, sooner or later you'll wind up with a bad finish. The problem then is to be able to recognize the condition, make a correct diagnosis as to what caused it, and then to remedy the situation. And, of course, take steps to prevent its recurrence.

Improper paint handling is probably the most common cause for paint failures. And frequently, mishandling of the material won't show up until the paint is on the surface.

Use of a "borderline" thinner, for example might have no noticeable effect on the material during the preparation and spraying stages. But if you'll check the illustrations shown here, you'll find several finish failures that could have been caused by a wrong or cheap thinner.

There are other causes for paint failures shown in these illustrations too. In each case, the most probable causes are given, along with suggestions as to how the damage can be repaired. The photographs used for these illustrations were furnished by the Rinshed-Mason Company, Detroit, Mich.



1. POOR ADHESION

Caused by: (1) Presence of foreign materials on surface, such as wax, grease, silicones, water, rust, solder, soap. (2) Insufficient sanding. (3) Use of gasoline or reducer in the sanding operation. (4) Improper use, or no use of metal conditioner. (5) Wrong type of undercoat. (6) Use of cheap or insufficient thinner. (7) Air pressure too high when applying undercoat. (8) Recoating of primer without allowing sufficient time for drying. (9) Surface too hot or too cold. (10) Films too thick.

Brittleness, a condition in which the dried paint film cracks and breaks off, is very similar to this and is caused by the same conditions.

Remedy: When the finished paint job shows any signs of poor adhesion or brittleness, the only method of repair is to completely remove the old finish and repaint.

5. RUNS AND SAGS

Caused by: (1) Spraying over surface contaminated with wax, oil, grease, silicone, or over a short brittle film which dissolves and allows wet paint to skid. (2) Too much slow drying thinner or reducer. (3) Coats applied too heavy and wet. (4) Poor spray-gun technique or adjustment. Distorted spray pattern. (5) Material, surface or atmosphere too hot or too cold. (6) Air pressure excessively low.

Remedy: If sag is still wet and another coat can be applied lightly, brush out sag with fine camel-hair brush, and recoat. Or, if color coat is completely dry and hard, sand out sag with 400 grit paper and water. Polish out or re-spray as necessary.

6. CHECKING

Caused by: (1) Poor quality, too brittle finish. (2) New finish applied over old which has already checked—or which is too soft, too thick or not thoroughly dried. (3) Excessively thick finish coats. (4) Use of unproven additives such as gloss improvers. (5) Insufficient stirring of materials to incorporate all pigment. (6) Use of shellac sealers. (7) Excessive amounts of clear lacquer or enamel added to color. (8) Poor quality or improper thinner.

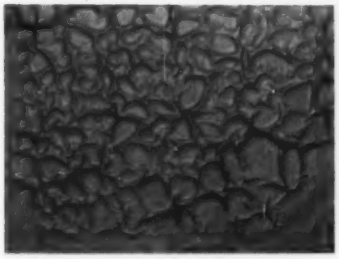
Remedy: Thoroughly remove entire checked finish and repaint.

7. HOLD-OUT

Caused by: (1) Not enough stirring of undercoat each time before use. (2) Too much undercoat, or spraying too dry with resulting porosity. (3) Insufficient sanding of undercoat, or sanding before thoroughly hard and dry. (4) Applying color coat before undercoat is thoroughly dry. (5) Failure to seal or pre-coat porous surfacer spots. (6) Using too coarse grit sandpaper. (7) Insufficient color coat.

Remedy: When color coat is completely hardened (several days may be required), wash with water, and rub out with fine compound and liquid polish. If this doesn't work, refinishing is required.

How You Can Avoid Them



2. LIFTING, PUCKERING

Caused by: (1) Second coat over first coat which was applied to surface not thoroughly cleaned and sanded. (2) Use of lacquer over air-dried enamel. (3) Sandwiching enamel coat between two lacquer-type materials. (4) Application of color coat over incompletely cured undercoat. (5) Use of lacquer thinner in enamel.

Lifting occurs when solvents are absorbed by previous film that is not completely soluble in, or impermeable to, the wet film applied over it.

Remedy: Only recommended method of repair is to completely remove the lifted area and refinish.

3. DIRT, GRITTINESS

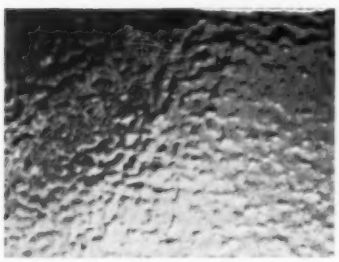
Caused by: (1) Particles of ordinary dust and dirt from fabric or clothing. (2) Particles from dry sanding operations. (3) Particles blown out of cracks, mouldings, etc., when spraying. (4) Improper straining of material.

Remedy: On lacquer, dirt can be polished out with compound. Enamel and other non-polishing materials should be allowed to dry several days. Then, wash with water and hand polish. And in extreme cases, water-sand with fine grit and repaint.

4. WRINKLING

Caused by: (1) Rapid drying of top surface while undercoat remains soft. (2) Any condition that leads to slow drying, thick film or lifting tendency. (3) Spraying in hot sun or exposing to sunshine before enamel is thoroughly dry. (4) Force-drying of some enamels without use of baking convertor. (5) Abnormally hot and humid weather.

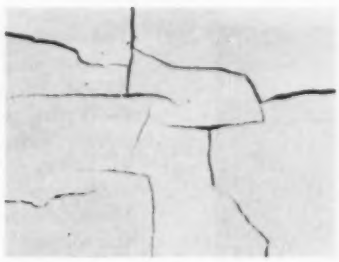
Remedy: Remove wrinkled film and repaint properly. And here's another method but it can't be guaranteed: Bake out or allow wrinkled finish to thoroughly harden; then apply synthetic primer-surfacer. When completely dry, thoroughly water-sand with 320 or finer sandpaper, allow to dry, and re-coat with color.



8. ORANGE PEEL

Caused by: (1) Spraying over surface contaminated with wax, grease and especially silicone. (2) Wrong type or poor grade of thinner or reducer. (3) Insufficient reduction of color. (4) Air pressure too high. (5) Improper adjustment of spray-gun or poor spray-gun technique. (6) Spraying in draft. (7) Coats applied too dry and thin. (8) Abnormal shop or metal temperatures. (9) Plugged up spray-gun or air-line.

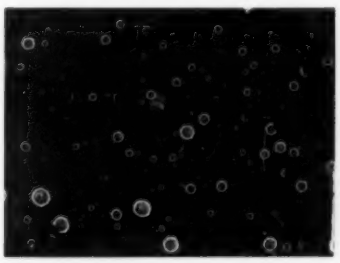
Remedy: After color is thoroughly hardened, rub out orange peel with fine compound and polish. If condition is very bad, water sand with fine grit (400) sandpaper, and re-spray.



9. CRACKING

Caused by: (1) Shrinking or splitting of undercoat. If material is not sufficiently stirred it may upset pigment-to-binder ratio and remaining material will always give trouble. (2) Surface too hot or too cold, or not completely clean. (3) Wrong thinner or insufficient thinning of undercoat. (4) Insufficient drying time between coats. (5) Oil or water in air line. (6) Blowing of air on wet film to speed up flashoff and drying. (7) Undercoat applied too heavily, especially first coat.

Remedy: Sand out area or wash off with lacquer thinner or solvent and repaint.



10. WATER SPOTTING

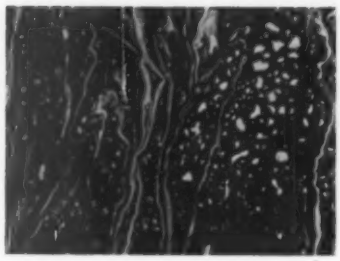
Caused by: Application of excessively thick coats. (2) Allowing rain or dew to get on finish, or washing finish before it is completely dry. (3) Combination of rain and sunshine on new paint job . . . water drops act like small burning lenses. (4) Boiling water from overheated radiator getting on finish. (5) Frequently more noticeable on certain colors and on cars that have had excessive wax application.

Remedy: Wash off with cool water, rub lightly with damp rag, then polish out. If polishing does not give satisfactory results, area must be re-painted.

Continued on next page

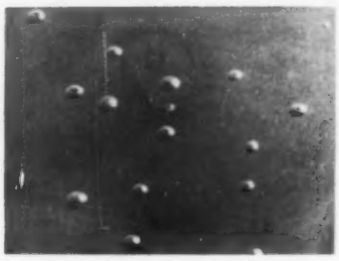
"It's easy to diagnose and treat paint-spray problems"

. . . continued



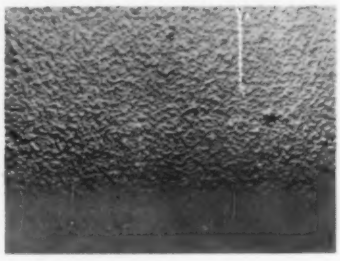
11. PRECIPITATION

Caused by: (1) Paint or thinner too cold when reducing. (2) Dumping thinner or reducer, or adding too rapidly to paint. (3) Insufficient stirring. (4) Wrong type or poor solvency thinner or reducer. (5) Addition of color to the thinner. (6) Use of old paint that has become partially oxidized and insoluble. (7) Overheating of paint during storage or hot-spray operations.
Remedy: Do not use material that shows any signs of curdling or precipitation during preparation. Do not make it a practice to save unused paint that has been previously reduced or heated.



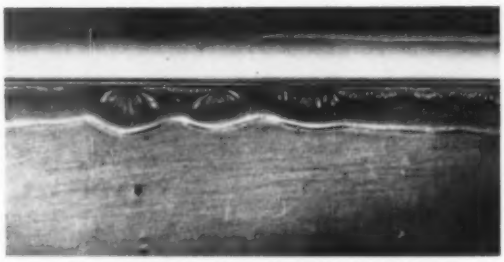
12. BLISTERING, PINHOLING

Caused by: (1) Moisture becoming trapped between metal and undercoat, or between undercoat and color coat—then expanding, and forming blisters. (2) Water or oil from compressed air line. (3) Rapid temperature changes or large temperature differential between surface and paint. (4) Porosity of undercoat caused by too high air pressure when spraying. (5) Solvent trapped in undercoat because of insufficient drying time. (6) Wrong or cheap thinner.
Remedy: Blistered area must be sanded out and repainted.



13. DRY SPRAY

Caused by: (1) Poor quality thinner. (2) Insufficient thinner. (3) Excessive air pressure. (4) Improper spray-gun setting, or dirty spray gun. (5) Holding spray gun too far from surface. (6) Spraying in draft.
Remedy: In case of lacquer-type materials, the overspray can usually be removed by polishing out, or by means of a wet mist-coating, using a mixture of one-part color with five-to-ten parts good, medium-slow lacquer thinner. With enamels, it's imperative to prevent over-spray. In mild cases, the over-spray can sometimes be polished out with liquid polish or fine enamel compound after several days drying time.



14. CRAWLING

Caused by: (1) Surface contaminated with silicone, wax, grease, oil, detergent, soap or water. The condition known as "fish-eyes" is similar to this and is caused by the same conditions.

Today, the most common cause of fish-eyes and crawling is the presence of silicones that are used in most modern waxes and car polishes. Even minute quantities of silicone in sanding dust, from contaminated rags, or even from polishes used a considerable distance from painting area, can cause the trouble. Simple test for silicone is to spray a dark-colored, air-drying enamel—one thin wet coat—over a small area. If silicone is present, fish-eyes will form immediately. Best prevention is to solvent-clean the surface *before* sanding.
Remedy: This condition generally appears almost immediately. As soon as it is noticed, area must be solvent-cleaned before proceeding with the paint job.

The final step in producing a top-notch finish is to make sure the material dries under proper conditions. See that plenty of clean fresh air in the 65-95 deg F range is available. Lacquers will usually require about two to three hours, enamels 18 hours, for *complete* drying.

Never allow the vehicle to dry in a small closed booth or room. Whether you use lacquer or enamel, the solvents in the material evaporate into the surrounding air as the paint dries. These solvent fumes must be removed from the area for the paint to dry properly. And remember, for safety's sake, never drive a car in or out of the spray booth . . . push it by hand.

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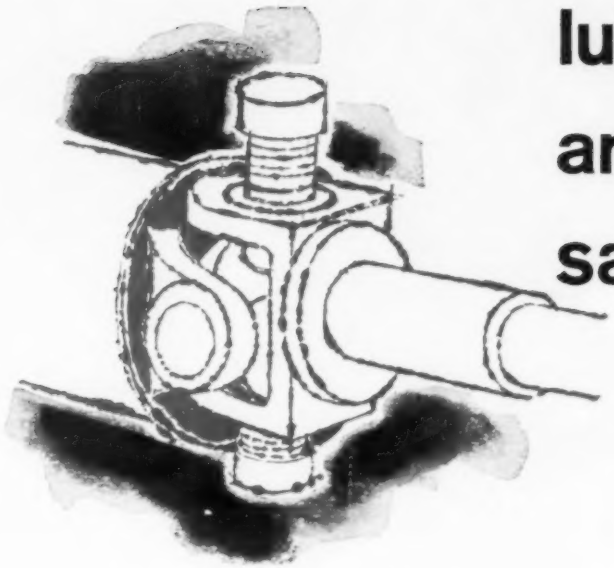
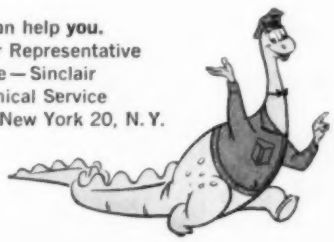
Universals... lubrication... and how to save money



Sinclair Litholine® multi-purpose grease replaces 3 different ordinary greases—chassis, wheel bearing, water pump. It therefore cuts unnecessary inventory costs. Furthermore, it eliminates the danger of misapplication. This superior lubricant has earned a reputation for lengthening lube intervals—prolonging life of universals and other vital parts. Change to Litholine, now. And when management asks how you've cut costs, tell them you've switched to Sinclair—and show them the results.

Find out how Litholine can help **you.** Call your nearest Sinclair Representative or write for free literature—Sinclair Refining Company, Technical Service Division, 600 Fifth Ave., New York 20, N.Y. There's no obligation.



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Litholine®
Multi-Purpose Grease

MEET LEONARD LENSINK

(SHOP SUPERINTENDENT OF HIRSCHBACH TRUCK LINES)

. . . and learn a lesson in true tire economy!

Hirschbach Lines have been in the trucking business for a long time. What's more, they've built up a sizable and profitable organization. As a fellow trucker you'd appreciate their success and the efficient and economical way they operate. For instance, when it comes to tires, Supt. Lensink knows—from lots of experience—that quality pays off: the best tires deliver not only top dependability but true economy. That's why they keep their fleet rolling on Kellys. It will be worth your while to read what Mr. Hirschbach has to say on the subject:

The Hirschbach organization owns and operates a working fleet of 30 tractor and trailer units hauling fresh fruits and vegetables from the West Coast and bananas from New Orleans to points in Sioux City, Iowa, and the Middlewest. They also haul eggs from Sioux City and the surrounding territory to the Southern States and the West Coast.

"For the past six years, we have been using KELLY-SPRINGFIELD tires. During this period we have had the opportunity to compare mileage and cost records with other types of tires and none has compared with KELLY'S record of performance. Not only do these tires deliver over 100,000 miles on the original treads, but will deliver similar amounts on the 2nd and 3rd caps. With this type of performance, we have been able to cut our cost considerably."

THE KELLY-SPRINGFIELD TIRE COMPANY, CUMBERLAND, MARYLAND

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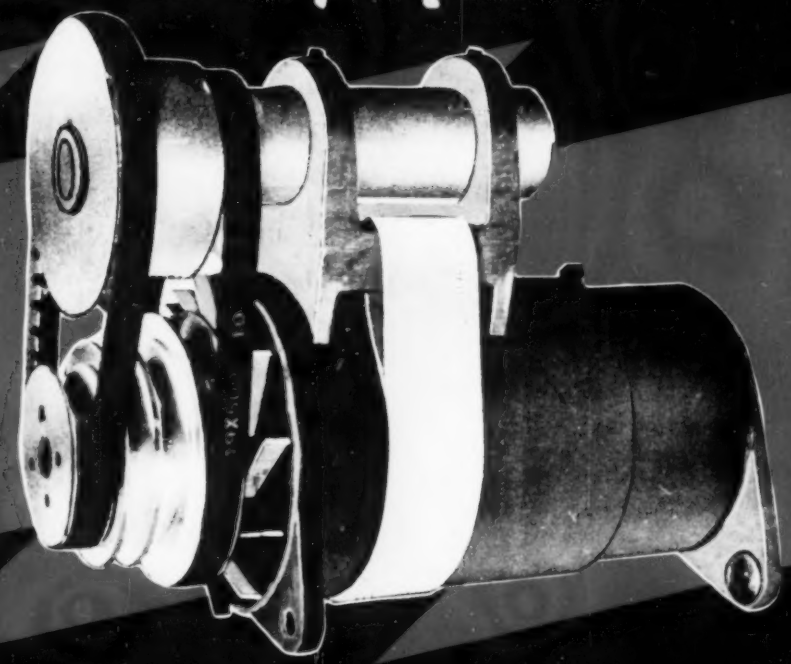
KELLY *Springfield* **TIRES**

. . . THE SIGN OF BONUS TRUCK TIRE MILEAGE!

NOW!

Peak generator performance at any speed...



GEN-O-DRIVE

GENERATOR OVERDRIVE

PATENT NO. RE 24309
Other patents pending

Gen-O-Drive generator overdrive attached to any automotive generator, assures maximum electrical current at any engine speed! Even at low speeds or curb idle, Gen-O-Drive produces all the "amps" your generator has to offer—keeps batteries at full charge, prevents costly down-time and repair calls. Eliminates the need for "engine racing" when accessory equipment is in use. And once installed, Gen-O-Drive does its job well and keeps on doing it, mile after mile . . . *without maintenance!*

GEN-O-DRIVE

CONSOLIDATED GENERAL PRODUCTS, INC.
Box 7425 • Houston 8, Texas

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Requested by_____ Title_____

A

SENSATIONAL NEW GEN-O-DRIVE ASSURES

Constant Battery CHARGE

even at idle and low speeds!

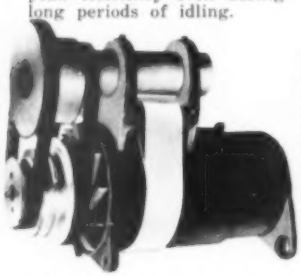
Fleet vehicles—owned by dairies, bakeries, utilities, department stores, service companies and other metropolitan users; wreckers, ambulances; passenger cars in stop-and-go traffic; fork lift trucks and other industrial equipment; radio-telephone equipped vehicles; air-conditioned vehicles; all maintain fully-charged, efficient batteries with Gen-O-Drive equipped generators.

With Gen-O-Drive, maximum current availability is coupled with constant voltage regulation. No sudden surges of high voltage to damage electrical or electronic components. Prevents overcharging, adds months of extra battery life.

DELIVERY VEHICLES . . . maintain more efficient schedules, even after daily "door to door" stops and heavy traffic driving.

SERVICE TRUCKS . . . benefit from sufficient current to operate *all* accessories . . . *always!*

RADIOTELEPHONE CARS . . . operate with batteries at peak efficiency even during long periods of idling.



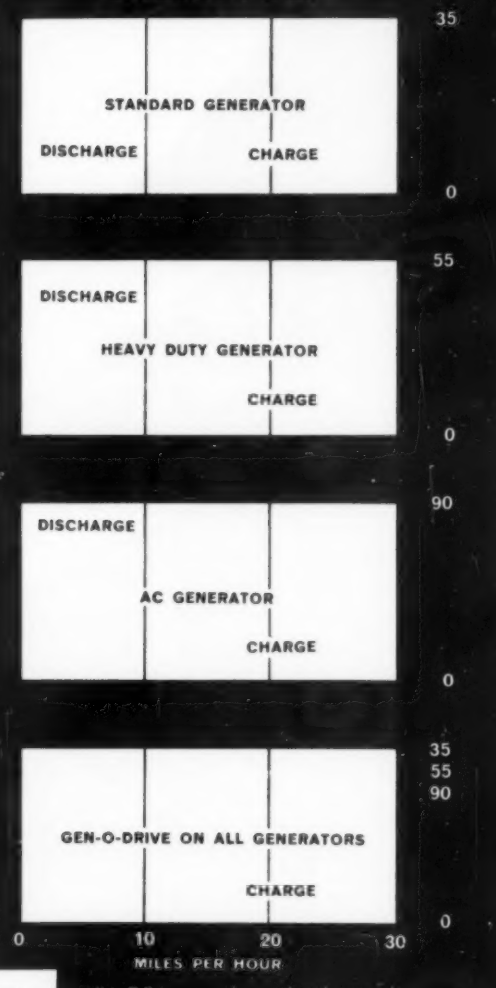
GUARANTEED to make generators perform *better!* Gen-O-Drive is guaranteed for a period of 90 days or 4,000 miles, whichever occurs first; the same guarantee as that issued on the vehicle on which it will be used. Should the unit or any of its working parts fail within the prescribed time, replacement will be made without charge.

FILL IN CARD BELOW! GET FULL DETAILS ON GEN-O-DRIVE!

GEN-O-DRIVE

Patent No. Re. 24309 – Other patents pending

GENERATOR OUTPUT COMPARISON CHARTS



Gen-O-Drive may be used with any of the generators shown above and will produce maximum output.

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The bride has every right to complain, and so have many other irate customers who are waiting for flowers that can't be delivered on time. Everybody loses when a truck battery fails—that's why it pays to protect your fleet and your customers with Delco Extra-Duty batteries. Backed by General Motors and Delco, this battery has what it takes, and proved it during gruelling endurance tests at the GM Proving Grounds. And out on the road where cost is as important as dependability, truckers have found that the Delco Extra-Duty provides the lowest cost per mile of operation. What more could you ask for in a truck battery? Delco has more. A long term warranty that's good all over the U.S. and Canada. So why take a chance? Protect profits by choosing Delco, wet or dry charge, the No. 1 battery in America.

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WEAVER HEAVY DUTY LIFTS

handle all wheelbase lengths without loss of lifting capacity

You'll find that Weaver Lifts provide the answer for every weight and wheelbase requirement of every vehicle in your fleet. These lifts raise vehicles by the axles, thus giving mechanics free, unobstructed access to every under-chassis point. There are no rails in the way. Such working efficiency speeds shop production from 25% to 100%.

The Weaver Twin Post Lift and the Weaver Triple Post Lift (shown above in the same shop) are the *only* automotive type lifts that can handle various wheelbase lengths without loss of lifting capacity.

Heavy Duty Twin Post Lifts are regularly furnished with a wheelbase capacity of 102" minimum and 204" maximum unless otherwise specified. Wheelbase extentions are available to take from 36" minimum up to 306" maximum — or longer if desired.

MODEL EC-105 TWIN POST LIFT is air-oil operated, and has a total capacity of 24,000 lbs.

MODEL EC-106 TWIN POST LIFT is electric operated, and has a total capacity of 36,000 lbs.

MODEL EC-106-3 TRIPLE POST LIFT is electric-oil operated, and has a total lifting capacity of 54,000 lbs.

For further details, see your Weaver jobber, or write us for Bulletin FO-457.

WEAVER

WEAVER MANUFACTURING COMPANY, SPRINGFIELD, ILL., U. S. A.

SERVICE SHOP EQUIPMENT

Complete line includes: Twin Post Lifts . . . Triple Post Lifts . . . Single Post Roll-on, Free-Wheel and Frame Type Lifts . . . Unit Lifts . . . Bumper Lift . . . Car Washers . . . Wheel Alignment Equipment . . . Headlight Testers . . . Brake Testers . . . Wheel Balancing Equipment . . . Jacks . . . Wheel Dollies . . . and Air Compressors.

Keep This Handy Reader's Guide To 1958 Fleet Owner Stories

IT'S SPECIALLY ORGANIZED to help you find the stories you're looking for—and to find them faster.

First of all, you'll note the index is in two sections. Part I lists subjects covered in regular FLEET OWNER features (picture stories, surveys, special reports). Even the major items in our Personal Business Department are listed. Part II is an alphabetical listing with more than 60 headings and cross-index references. Another innovation is symbols to identify certain types of stories. Example: PS for picture story. This is an extra memory aid, in case you're looking for a story which you remember as a picture story.

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OUT OUR WAY **By J. R. Williams**

LOOKA THIS RECORD OF THE RECAPS WE'RE GETTIN' ON THOSE LEE SUPER DE LUXE HIGHWAY NYLONS. EVER SEE ANYTHING LIKE IT BEFORE?
I KNEW WE'D GET THAT WHEN WE BOUGHT 'EM!
THE BULL IS JUST AS SURPRISED AS ANYBODY ELSE, BUT HE WON'T ADMIT THEM TIRES IS TWICE AS GOOD AS HE FIGGERED!
HE THOUGHT NYLON WAS NYLON. NOW HE KNOWS LEE NYLON IS SOME-THING ELSE AGIN!
J.R.WILLIAMS
THE WISE GUY
T.M. Reg. U.S. Pat. Off.
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MORE ORIGINAL AND RECAP MILEAGE AT LESS COST

With Lee Super DeLuxe Highway Nylons you can be sure of it

You can have your truck tire economy as simple as 1-2-3 with Lee Super DeLuxe Highway Nylons. These outstanding tires give you 1) long original mileage; 2) extra recaps; and 3) lowest possible cost per mile. The three big advantages that add up to sure savings.

Not just *nylon*, but Lee Super-Tensile Nylon, goes into the construction of these tires. This tough cord provides the ultimate protection against the impact bruises, blowouts and moisture damage that take their toll of tires built with ordinary cord. And, during the Lee Super-Tensile manufacturing process, the cord is also treated with Double-Dip Flexlok, the super-adhesive that reduces the effects of heat and flexing and makes cord separation from the bond virtually impossible.

You get additional assurance of extra mileage with the wide, flat tread—made of the best type of smoked sheet natural rubber. Other Lee improvements in the tread design result in better traction and cooler running.

Equip your units with Lee Super DeLuxe Highway Nylons —tubed or tubeless—for more mileage and more recaps!

The Lee Super DeLuxe Highway. Whatever your truck tire needs, there's a Lee that's *right* for the job.

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Please send me your free catalog showing Lee of Conshohocken's entire line of truck tires.

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LEE RUBBER & TIRE CORPORATION **CONSHOHOCKEN, PA.**

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after 586,000 miles...

only this gear was replaced!
HAVE FAITH IN AMERICA
PROMOTE AND PROSPER
GULISTAN CARPET
MADE IN U.S.A. BY AMERICAN CRAFTSMEN

Unretouched photo of idler gear removed after 586,000 miles.

586,000 miles in 26 months is a real test of any truck. Yet this idler gear was the only part replaced on an 8-speed Fuller ROADRANGER® Transmission after 586,000 miles of service in an International DC205A Tractor.

The tractor is owned by Ryder Truck Rental of Miami. Leased to A. & M. Karagheusian, Albany, Georgia, carpet manufacturer, it has averaged over 5,000 miles per week since April, 1956.

Ralph Will, Albany Branch Manager of Ryder Truck Rental, says, "We're certainly pleased with the ROADRANGER's performance. The record made by this unit is typical of the service we've obtained from all our ROADRANGERS."

"Ease of operation is important on long hauls such as ours," says Arthur B. Lauman, Karagheusian's Albany plant manager. "Our men like the ROADRANGER's closely-spaced gear ratios and single shift lever. Fuller's pre-selected automatic range shifts are popular, too."

For durability, economy and easier shifting, specify Fuller ROADRANGER Transmissions.

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- Featuring: 2 piece (Bi-Metal) Exhaust Valves.
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THIS TRADE MARK GUARANTEES YOU "SPECIALIZED" QUALITY

rmc **has specialized, for a half century, in making nothing but valves for the automotive industry. That's why** ***rmc*** **valves give more mileage and better performance under every operating condition. Take advantage of this "Specialized" quality—insist on** ***rmc*** **valves.**

COMPLETE COVERAGE VALVE TRAIN PARTS

VALVE SPRINGS	ROTATOR VALVE
VALVE LOCKS	KITS
VALVE GUIDES	VALVE SPRING
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Warehoused in all principal cities. Sold by leading Replacement Parts Wholesalers everywhere.

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BATTLE CREEK, MICH.

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Drive the dead axle... double the traction

...and get these additional advantages

- Uniform power through all 8 wheels
- Smoother power for less road shock and jerking—reducing maintenance
- Improved steering and braking control for safer operation
- Elimination of wheel hop, reducing tire cupping
- Lower tire cost per mile
- Year-round operation...doesn't have to be taken off and reinstalled—virtually no maintenance
- Easier, smoother ride—less driver fatigue
- Gates Tandematic Drive can be used on trucks with either tag or pusher axles...spoke or disc type wheels. For complete information on Gates Tandematic Drive write to: Manager—Tandematic Department, The Gates Rubber Company Sales Division, Inc., 999 South Broadway, Denver 17, Colorado.

Gates Tandematic Drive gives you BOTH...

Specially hardened Red Groove Pulley

Has more than 3 times greater life than ordinary pulleys. (Gates Red Grooves have a hardness rating from 430 to more than 600 on the Brinell hardness scale.)

Roll-on feature (Pat. Pend.) Split construction permits pulley groove to be offset, so belt can be rolled on at high tension easily and safely.

Self-cleaning. Open design insures peak operating efficiency at all times.

Rib-Top V-Belt

Protective ribbed top: Resists sand-blast effects from wheels—gives longer belt life.

Flex-Weave Cover: (U. S. Pat. No. 2519590.) Protects vital core of belt from mud, dirt, grease and oil; yet gives greater flexibility for longer service life.

Concave Sidewalls: (U. S. Pat. No. 1813698) Concave sides increase belt life. As belt bends, concave sidewalls become straight, making uniform contact with sheave groove. Uniform contact means less wear on sides of belt...far longer belt life.

Special tensile cord construction: Greater resilience of Gates tougher tensile cords enables belt to absorb shocks and carry extra heavy loads. Also permits belt to be pre-loaded to the proper operating tension while being installed.

The Gates Rubber Company Denver, Colorado

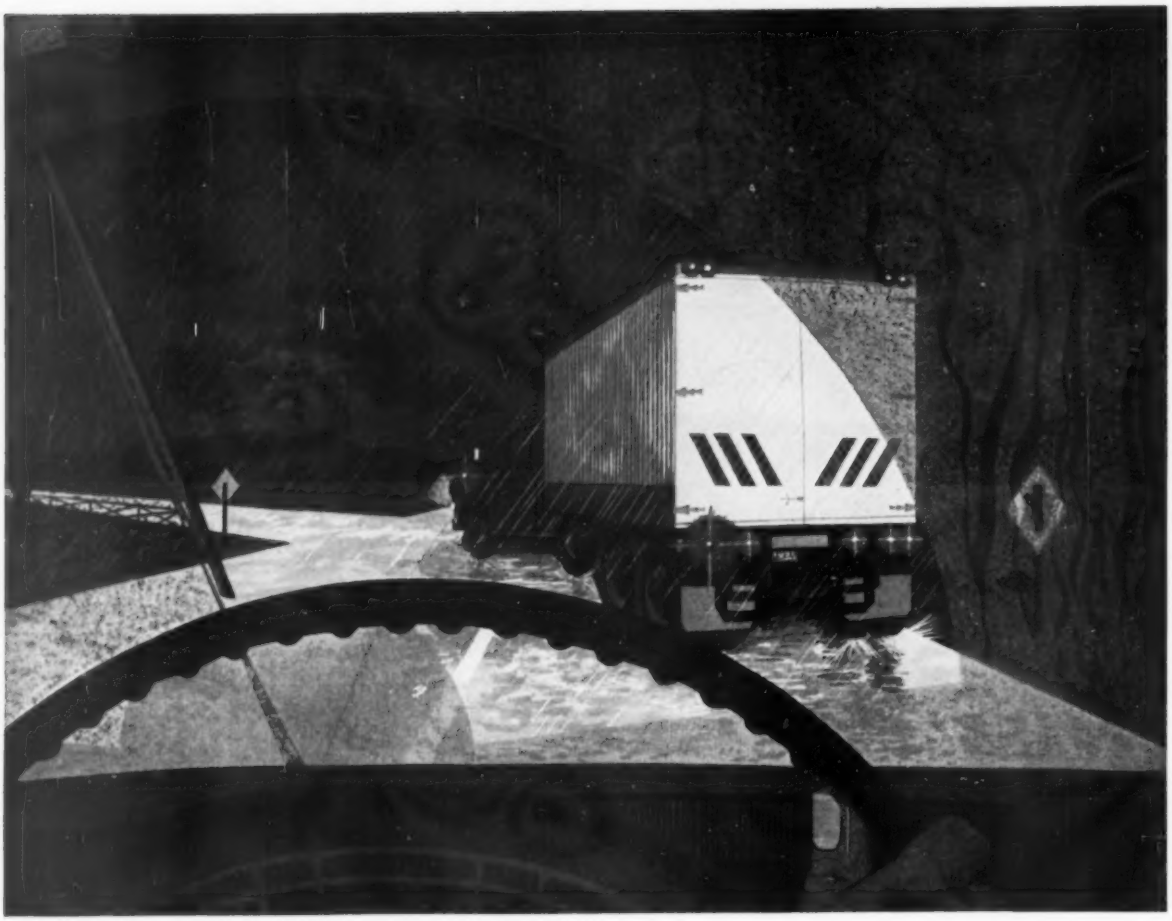
World's Largest Maker of V-Belts

Gates

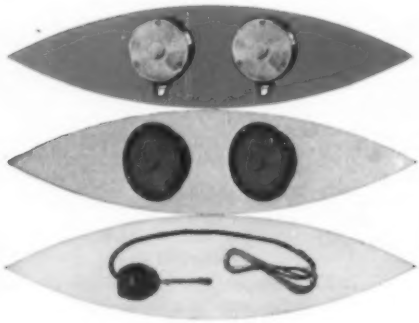
The Mark of *Specialized* Research

TPA-368

Gates Tandematic Drive



Guide's High Visibility Reflectors and Turn Signals mean all-weather safety for your truck fleet!



Turn signal set has four lamps, self-cancelling switch... choice of bracket or flush mounting for rear lamps

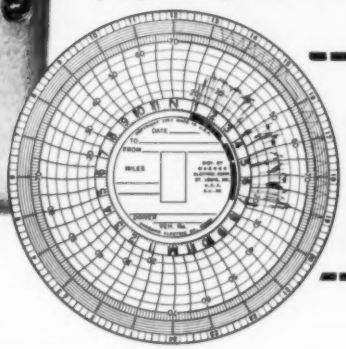
Most often, trucks can't stop for bad weather. They must be on the road in rain, snow and sleet. It is in such weather, when visibility is low, that the danger of rear-end collisions rises sharply. And there's not much that even your best driver can do to avoid this hazard, if his truck is not clearly visible from the rear. Guide's high-visibility reflectors and turn signals can help prevent needless and costly delays. Because of their dependability and uniformly high quality, Guide reflectors and signals are specified as standard equipment by many leading vehicle manufacturers. Available at United Motors Service outlets and most truck dealers.

Guide Lamp ... BRIGHTEST NAME IN LIGHTS

GUIDE LAMP DIVISION • GENERAL MOTORS CORPORATION • ANDERSON, INDIANA

WANT FACTS TO HELP YOU
reduce operating costs of your fleet?

WAGNER SANGAMO TACHOGRAPH
graphically records factual trip information for you



- **RECORD OF TIME**—The exact hour and minute of time that a vehicle is stopping, idling, traveling or halted is accurately recorded on the outer rim of the chart.
- **RECORD OF MILEAGE**—Exact distance in divisions of one mile are recorded by the "saw-tooth" graph. Each complete "saw-tooth" records 10 miles traveled.
- **RECORD OF SPEED**—The important, accurate record of speed at any given minute is shown on the major portion of the chart.
- **RECORD OF OPERATION**—This solid record on the inner circle of the chart shows every minute that the engine is running, whether idling or in travel.

For little more than two cents a day per truck (the cost of the Tachograph chart), you can supervise your fleet with a complete and accurate record of driver and vehicle performance. You'll know first-hand the entire trip story of every run—have better control of in-transit operation.

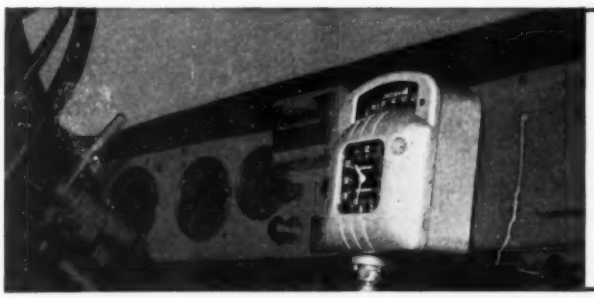
A Tachograph helps lower operating costs by verifying I.C.C. logs, overtime and delays. Fuel, tire and general maintenance expense are all lessened because speed is controlled—bad driving habits corrected. Tachograph charts have frequently been used to substantiate driver's testimony in court to show the precise rate of speed truck traveled at any given moment.

A Tachograph promotes better road safety, too. By comparing the chart with trip schedule, you will know exactly how many stops were made and how closely the schedule was kept. From the chart you can also tell where traffic congestion is likely to occur, when slowdowns may be necessary and when alternate routing may be in order.

If part of your fleet is diesel powered, R.P.M. models are available to help show drivers when to shift gears to reduce engine abuse from overspeeding, "lugging" or improper shifting.

Get complete information on how your fleet can operate more safely—more profitably with Tachographs. Mail the coupon for your free copy of Bulletin SU-3 which tells the whole Tachograph story.

TACHOGRAPH PROTECTS THE FLEET OPERATOR *and* THE DRIVER



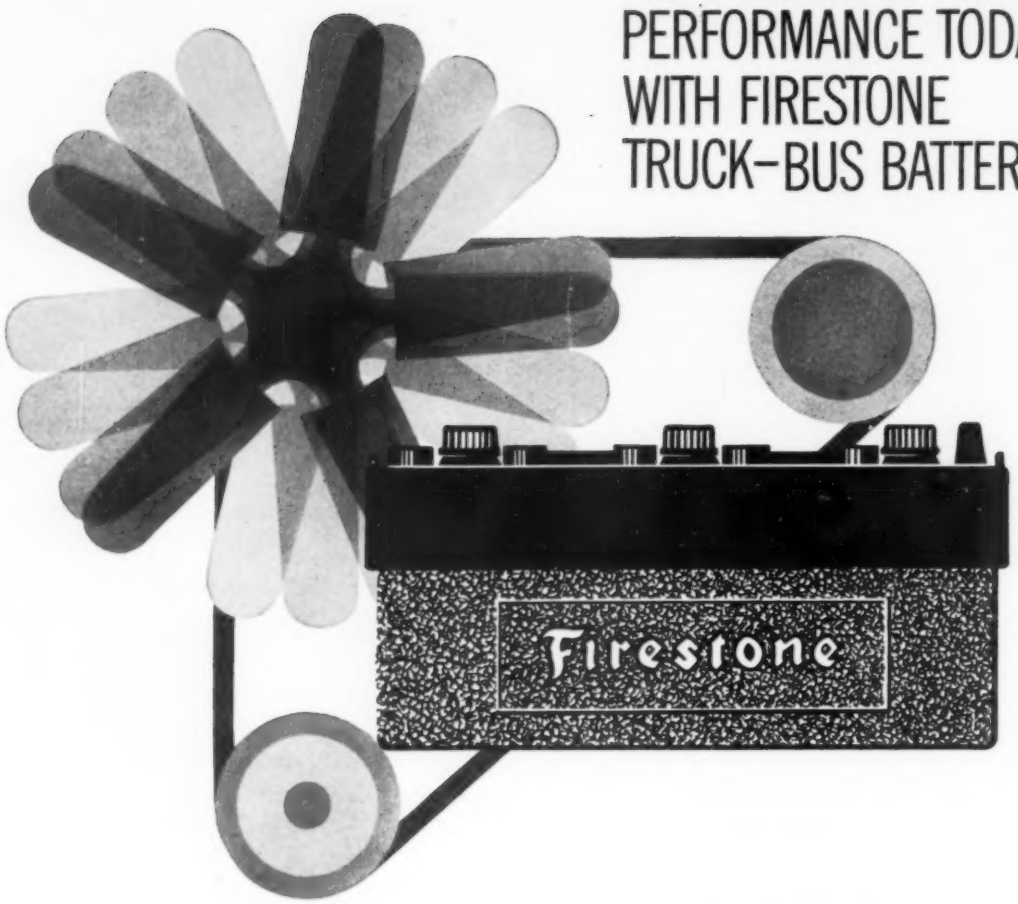
Wagner Electric Corporation
6481 PLYMOUTH AVE., ST. LOUIS 14, MO.
Please send a copy of Bulletin SU-3.

Name and Position_____
Company_____
Address_____
City_____ State_____
We operate_____ (NUMBER) Vehicles

W559-1

LOCKHEED BRAKE PARTS, FLUID, EXCHANGE SHOES and LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES

START GETTING NEW LOW-COST FLEET PERFORMANCE TODAY WITH FIRESTONE TRUCK–BUS BATTERIES!



Here are six big reasons why Firestone's truck-bus battery "extras" will cut operating costs, deliver new economy to fleet owners: • *High capacity* ampere ratings exceed S.A.E. and A.A.B.M. specifications • *Hard rubber case* assures longer life, greater resistance to road shock, high temperature, and distortion • *Extra-life power grids* assure even, efficient current distribution, resist overcharging and corrosion • *Extra-height posts* make it easy to install cable terminals without danger of breaking battery cover • *All-rubber separators* offer extra protection from vibration, temperature extremes and acid attack • *Splash-proof caps* release gas but trap and return acid spray safely to cells. From its generous reserve of electrolyte to the protective rubber bushing on terminal posts, Firestone "extras" set the pace for low cost-per-mile in any wiring plan. See your Firestone representative, or write The Firestone Tire & Rubber Company, Akron, Ohio.

GO **Firestone**
All the Way with

BRAKE LINING

TIRES

SPARK PLUGS

BATTERIES

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Enjoy the Voice of Firestone on ABC television every Monday evening.

1959 Color Contest—Easy Way to Cash-In on Your Fleet's Looks

A SMART LOOKING VEHICLE is the sign of a smart operation. Everywhere it goes it's going to be making an impression, going to influence what people think of your company. That's why FLEET OWNER has given color engineering so much emphasis. And it's also the reason behind the one-year-old Color Efficiency Competition.

FLEET OWNER wants to give a boost to operators who show that they're in the know by using color as a part of their business, and by giving them encouragement, to raise the standards for vehicle color design everywhere.

What will winning get you? That's the big question and, after the 1958 contest, it's been proved out. The Color Award is not only an excellent public relations device, but is being used as one more method of boosting employee morale, giving them the feeling that their company is something to be really proud of.

In addition to a handsome, gunmetal gray plaque which is presented to the winners, 100 free reprints of the full-color announcement that will run in a future issue of FLEET OWNER is given to each fleet. Pictures, in color, of the winning vehicles are featured in this story. Additional copies of this reprint may be ordered, at cost, for promotional purposes. To get an idea of what this story will look like, see FLEET OWNER, Nov. '58, p 101.

For multi-shop fleets, additional copies of the Color Efficiency Award plaque are also made available, at cost, to be hung in offices and shops throughout your company.

It's simple to enter, too. Paperwork has been held to the bare minimum. All FLEET OWNER will want to know is how you picked your color scheme, and a little about how you paint. Photographs of your vehicles will be required, but they need not be expensive. Finalists may be called upon to provide additional information and photographs suitable for reproduction in the magazine. For full details on how to enter your fleet, fill out the form at the bottom of the page and send it to: Contest Editor, FLEET OWNER, 330 W. 42nd St., New York 36, N. Y.

The deadline is May 15th, so you can't afford to delay. The sooner you get the forms, the sooner you'll be able to get your entry ready.

One really nice thing you'll want to know about this competition: fleet size makes no difference. If you have five good-looking vehicles, you're in just as good a position to win as the man with a thousand or more. But, of course, the job of your fleet can make a difference. And the judges allow for that. You'll be competing against fleets in similar operations, with similar problems to overcome.

Fleet Owner Color Awards Contest

330 West 42nd Street

New York 36, N.Y.

Yes, we would like to enter our company in the contest for the annual fleet color awards. Please send complete details and entry forms to:

Name .....

Title .....

Company .....

Address .....

Number of Vehicles in Service ..... Type Operation .....

COMPACT INTERIOR accommodates medical equipment and beds for six donors.

HOSPITAL-WHITE EXTERIOR of refurbished bus promotes Rhode Island blood insurance program as it collects from donors in outlying sections.

Safety Starts With Seeing!

SPRAGUE *AIR-Push* Windshield Wiping Equipment is STANDARD on these FAMOUS TRACTORS!

• FORD •
ON AIR EQUIPPED
CONVENTIONAL AND TILT-CAB MODELS

• DIAMOND T •

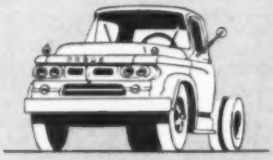
• INTERNATIONAL •
FORT WAYNE

• KENWORTH •
DIV. PACIFIC CAR AND FOUNDRY CO.

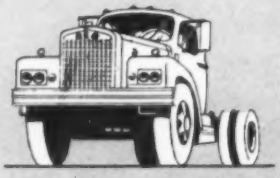
MAXIMUM SAFETY — DEPENDABLE PERFORMANCE — MINIMUM MAINTENANCE

• INTERNATIONAL •
EMERYVILLE

• WHITE FREIGHTLINER •



• DODGE •
FACTORY INSTALLED SPECIAL EQUIPMENT



• REO •
DIVISION OF WHITE MOTOR CO.

Sprague DEVICES, INC.
MICHIGAN CITY, INDIANA

Used Coaches Can Still Work . . .

. . . as this converted unit donated by United Transit Co. demonstrates. It's now serving the Blood Insurance Program operated by Rhode Island American Legion. The labor involved in rebuilding and refinishing the 1944 White coach was contributed by UTC mechanical department employees, who worked evenings and weekends, using UTC shop equipment.

Four UTC men have figured prominently in the program since its inception in 1948. It was originally sparked by Dan Gorton, night foreman of the company's Pawtucket mechanical division. The Bloodmobile, itself, was the brain child of John Ryer, UTC claims man, assisted by Joseph H. Hackett, assistant supervisor of schedules. Arthur E. Lewis, president of the company, who contributed the 41-passenger bus, had been a frequent blood donor. All four men are active in Legion and civic affairs.

Annual premiums for the insurance program are one pint of blood—which provides complete family coverage for a twelve-month period. To date, about 30,000 pints have been collected. Based on the going rate of $35 a pint, this comes to more than a million dollars. Now, the new Bloodmobile is expected to up this figure considerably because it can cover outlying places where facilities were previously lacking.

AC and GENERAL MOTORS COMBINE TO BRING YOU

TOP-FLIGHT ENGINEERING • ULTRA MODERN LABORATORIES

THOROUGHGOING RESEARCH • CONTINUOUS TESTING

INTENSIVE QUALITY CONTROL

All dedicated to producing the finest

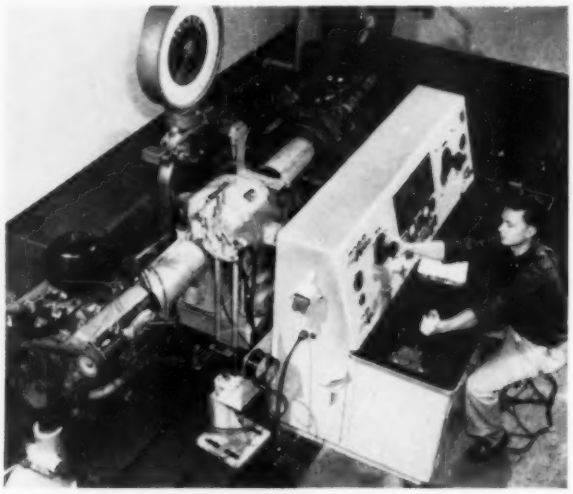
HOT TIP
COMMERCIAL SPARK PLUGS

Here's the *real* story about why more and more truck fleets are changing over to AC!

SPARK PLUGS

benefit from these unequalled facilities

AC SPARK PLUG ENVIRONMENTAL research and testing supplement out-of-doors work by using special chambers in which various conditions of altitude, pressure, humidity and temperature can be simulated. With such indoor facilities, weather can be made to order for immediate research study . . . the same kind of weather your own fleet encounters.



AC DYNAMOMETER FACILITIES are loaded with the newest, most modern equipment available. This setup makes it possible to run simulated road tests right in the laboratory. Stop-and-go . . . high-power, open road speed tests . . . the same type of load and road conditions truckers find in hill-country driving. Plugs are tested, proved and approved for any conditions you could encounter.

A TYPICAL AC LABORATORY at Flint, Michigan, where AC maintains complete metallurgical, ceramics and mechanical engineering laboratories devoted to spark plug improvement through research, and quality through control. The complete AC automotive engineering and research staff numbers more than 550 people devoted to the job of basic research to improve spark plugs.

FOR MOUNTAIN DRIVING TESTING, GM maintains a test site at Manitou Springs, Colorado, at fabulous Pikes Peak. Here operational tests are conducted on AC Commercial Spark Plugs that go far beyond the demands that will be made in normal usage. The use of such facilities help AC to build ever better products for you . . . result in better gasoline mileage, longer spark plug life.

TESTED BY AC

TESTED AGAIN BY GM

*and proved daily... in millions of vehicles**

by AC

GENERAL MOTORS TECHNICAL CENTER, near Detroit, Michigan, is recognized by the automotive and allied industries as a monument to the industrial significance of the automobile, its design and its engineering. Here GM has assembled, in personnel and in equipment, every resource for research and for testing—a magnificent supplement to AC's laboratories, and one that pays off for truck operators through improved efficiency of every component.

AT MILFORD, MICHIGAN, stretch out the many acres of the world-famous GM Proving Ground. GM was early to recognize the need for multiple-terrain testing of cars and trucks. Here all road conditions are duplicated and all sorts of road-testing carried on day in and day out, and 'round the clock. Tested at high speeds and low speeds, over millions of miles, AC Hot Tip Spark Plugs prove their better anti-fouling characteristics and longer life.

GM PROVING GROUND near Phoenix, Arizona—taking advantage of wide-open spaces, desert heat and sand conditions to augment the Milford operation. AC Spark Plugs are again a beneficiary, for the millions of test miles run at Phoenix put new and strenuous demands upon ignition. If even a tiny refinement can be made AC is quick to respond. You find the results of this test program in improved fuel combustion and better performance.

* ***44 truck fleets – testing new AC Commercial Hot Tip Spark Plugs over a total distance of 2,260,000 miles – proved that new ACs give better performance, greater mileage, longer life than any spark plugs previously used.***

ACTION
starts with AC

...the Spark Plug others follow!

FIRST with the stronger one-piece heat-sealed shell construction.

FIRST in welded side electrode construction for better heat and electrical current conductivity.

FIRST to incorporate a resistor element for elimination of radio interference from the ignition system.

FIRST with fused metal-ceramic seal to stop center-wire compression leakage.

FIRST in the use of unglazed insulator tip to resist lead attack.

FIRST with the aluminum oxide insulator in the United States—a patented AC ceramic composition!

FIRST to use greater "scavenging" area between insulator and shell.

FIRST with the long, thin, recessed, quick-heating insulator tip—the AC Hot Tip—another AC exclusive!

FIRST with the copper-core electrode to improve performance under special high temperature operating conditions in commercial applications.

HOT TIP SPARK PLUGS

For more than half a century AC has been the Spark Plug others followed. The leadership established by AC when cars and trucks became a horse-replacing reality has never been seriously challenged by even the closest of imitators. This has remained true because AC Spark Plug engineering, research, testing, and manufacturing development has kept ahead of ever-growing engine demands.

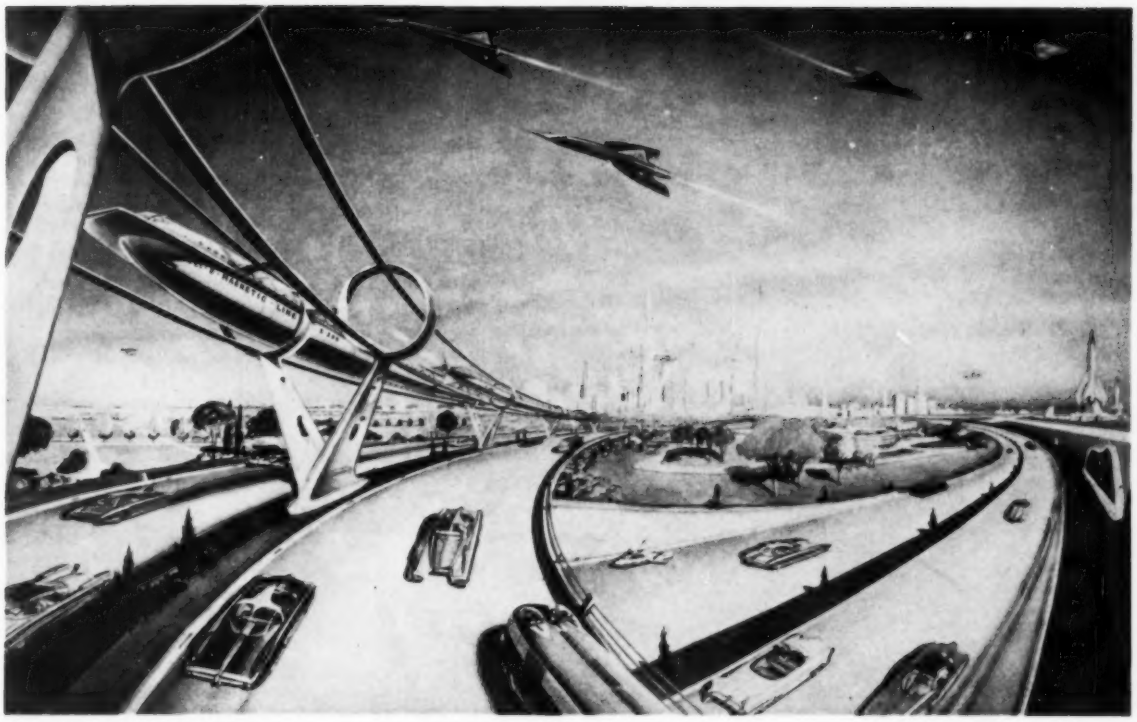
Some two dozen automotive components bear the familiar AC initials, attesting to the fact that AC is not narrowly limited to spark plug manufacture. This wide industry interest enables AC to employ facilities it could not offer as a one-product manufacturer.

AC, sharing some of its basic patents with others, pioneered and developed the kind of spark plug that modern high-compression engines demand. And, in addition, AC developed and still offers the exclusive Hot Tip design and the metal-ceramic center electrode seal which, with AC's heat-sealed plug assembly, completely solves compression leakage.

There's still more. You also get the tremendous advantages of General Motors' unequaled research and testing facilities. You can depend on AC to stay ahead in spark plug technology.

AC HOT TIP Spark Plugs are used in more new cars than any other brand, and are engineered for all makes of cars, trucks and tractors.

AC SPARK PLUG ⚛ THE ELECTRONICS DIVISION OF GENERAL MOTORS



GETTING INTO THE FUTURE is more than just a matter of technology. One of the big questions bothering Detroiters is . . .

What's the Look for Tomorrow?

Style experts are charging that Detroit is off on the wrong path. Builders are saying they give the public what it wants. And the public? That's the big question and it's drawing fleet men into the heart of the battle.

WILL IT BE THE GULL WING, spread eagle, clipped wing, lame duck or some other kind of styling? That's the decision facing many passenger car fleet buyers at the moment. Detroit isn't helping the situation one bit. In recent weeks, quite a hassle has developed among industrial designers regarding the styling, or lack of it, in 1959 model cars.

To add fuel to the fire, one of the divisions of the Big Three has put out a cartoon booklet lampooning its chief competitor.

The final test, of course, will come in the market place, and not from the opinion of designers. At about the time this article is read, the first realistic sales and registration figures which will indicate public preference will begin to appear. Due to strike delays car makers were kept quite busy filling pipelines to dealers and bringing car inventories up to par—so production figures for the past year did not necessarily reflect the way retail sales were going.

But auto stylists are a hardy lot and at the January annual session of the Society of Automotive Engineers in Detroit, representatives of the Big Three gave their impression of the car of the future. Despite recent criticism, the car of tomorrow is a further evolution of 1959 models, replete with fins, length, lowness, zippy performance, but with more emphasis on fuel and maintenance economy.

Take a look, first, at the comments of Carl Sundberg, president of Sundberg-Ferar, Detroit industrial design firm:

"In general, the 1959 cars tend to be over-ornamented, but not quite as excessively as 1958 cars.

"Glass area—we feel that the manufacturers have improved styling at the expense of safety.

"Size—The increased length of many 1959 models does little or nothing to improve appearance and certainly does nothing to improve the car's riding qualities. All you are getting is extra overhang, which simply makes the car that much harder to park.

"Styling—What evolution there has been in recent years has been mostly in the wrong direction.

"Uniqueness—Definitely, there is not sufficient differentiation between the 1959 American cars . . .

Continued on next page

Tomorrow's Looks...

Continued from page 99

General Motors took Buick and made it 'the car' for 1959. . . All their other cars currently use the same basic body shell. The result is that, whereas Buick arrives at an integrated appearance—in other words, looks as if it were designed as a single package—the designers of Chevrolet, Pontiac, Oldsmobile and Cadillac have been put to the necessity of forcing their cars into unnatural contours in the effort to achieve a different identity.

"Bodies—There are plenty of different body types available—but only in big cars. We would like to see the public offered a wider choice of smaller cars, say of the size of the Thunderbird."

Specifically, Sundberg made these comments regarding 1959 model cars:

"Cadillac—From a prestige car, Cadillac has degenerated into a symbol of vulgar ostentation, a monstrosity, and it is much too big. Styling is very poor. Behind the wheel you get the impression that you are driving a tank. We fail to see how anybody of any taste at all could buy this year's model.

"Chevrolet—Decoration of this year's model is overdone from all angles. From the rear, the Chevrolet's appearance is just ridiculous. The car is just too big for a so-called 'small' model.

"Chrysler—Not sufficiently different from 1958 to be worthy of comment.

"DeSoto—This year's DeSoto is hybrid, the result of crossbreeding an Oldsmobile and a Dodge.

"Dodge—Without a doubt the Dodge is the poorest example of new car design to be found among all of the 1959 models.

"Edsel—Here is a weak attempt to improve on what was already proved to be a poor design. What Edsel should have done was toss the 1958 design out completely and start over.

"Ford—The back-up lights look like flashlights stuck on top of the rear fenders as an afterthought. On the whole, however, this model is a vast improvement over the 1958 Ford styles.

"Imperial—We like this design and Chrysler should be congratulated for resisting the temptation to 'goop' it up.

"Lark—Lacking money for retooling, this is probably the best that could be done in the way of a cosmetic job of face lifting.

"Lincoln—Still a sleek-looking car, but far too long.

"Mercury—It's hard to find anything good to say about this car's styling.

"Oldsmobile—Taking off some (but not nearly enough) of the chrome has definitely improved the appearance of this year's models.

"Plymouth—What little change in styling from 1958 has taken place is in the right direction.

"Pontiac—The front end has a fresh appearance. On the other hand, the double-finned top treatment of the rear fender is just ridiculous.

Continued on page 104

Fountain BUS-FLEETWASH

FLO-PAC BRUSHES

CLEAN FAST! LAST LONG!

Keep your trucks and buses *showroom* bright . . . fast, muscle-saving FLO-PAC fountain brushes make quick work of mud, dust, dirt and other highway grime. FLO-PAC gives you performance that enables your service crews to turn out sparkling results in the shortest time. FLO-PAC gives you quality, built-in by the pioneers in fountain-type brushes, to withstand l-o-n-g hard use.

For general duty washing give your men BUSWASH (round) with generous size brush surface. For large area washing FLEETWASH (oblong) gets the big jobs finished fast. BUSWASH and FLEETWASH brushes with cast aluminum head and heavy rubber bumper are available in a wide range of stiffnesses, qualities, and price levels. Refill brushes are available.

Unquestionably the world's finest fountain brushes for fleets—buses

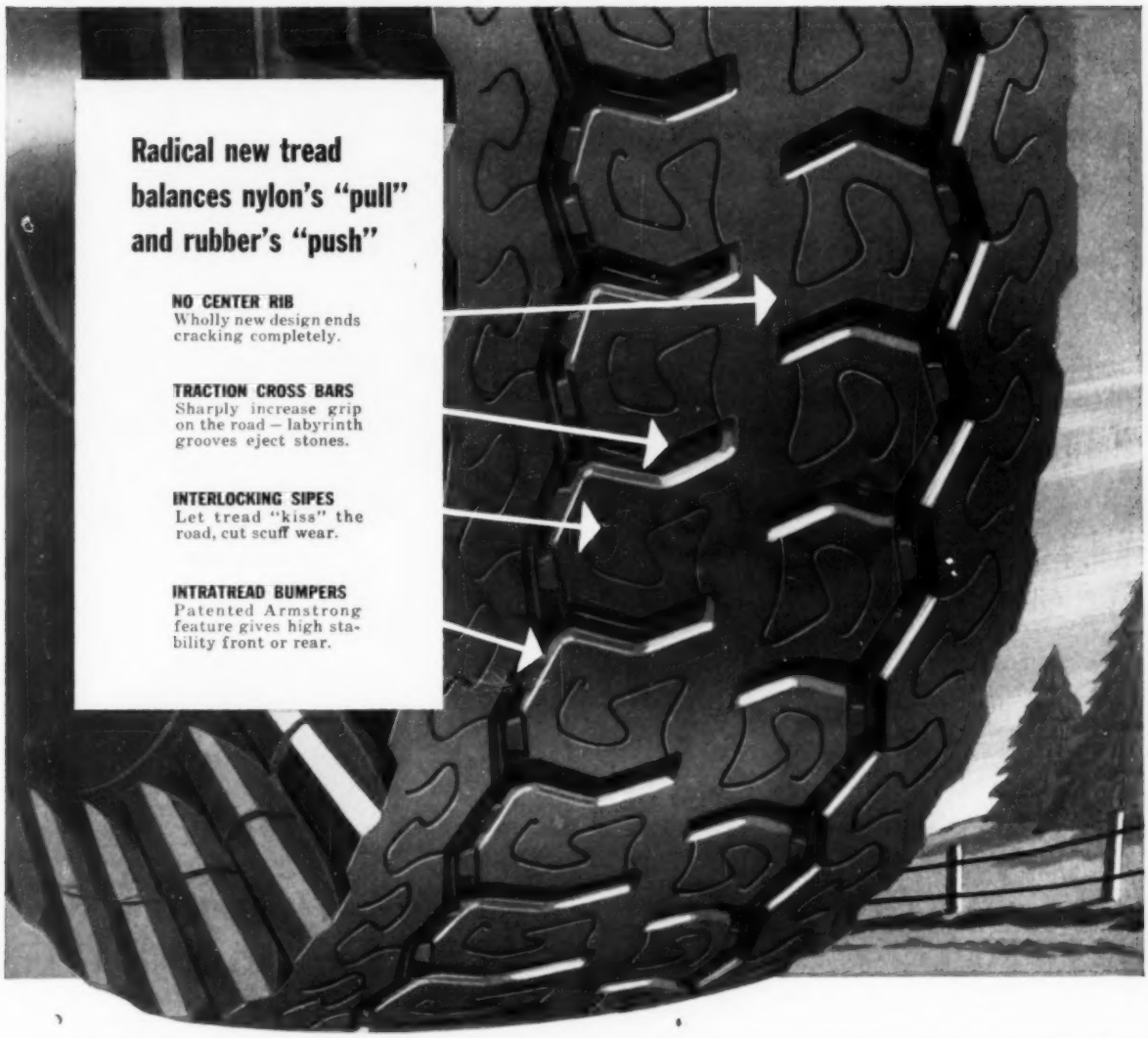
ORDER FROM YOUR JOBBER OR WRITE FACTORY FOR COMPLETE DETAILS

FLOUR CITY BRUSH CO.
1501 4th Ave. So.
Minneapolis 4, Minn.

PACIFIC COAST BRUSH CO.
2030 East 7th Street
Los Angeles 21, Calif.

DOMESTIC AND INDUSTRIAL — FLO-PAC BRUSHES — FLOUR CITY — PACIFIC COAST

First Tire 100% Engineered For Nylon!


Radical new tread balances nylon's "pull" and rubber's "push"
NO CENTER RIB
Wholly new design ends cracking completely.
TRACTION CROSS BARS
Sharply increase grip on the road – labyrinth grooves eject stones.
INTERLOCKING SIPES
Let tread "kiss" the road, cut scuff wear.
INTRATREAD BUMPERS
Patented Armstrong feature gives high stability front or rear.

ARMSTRONG TREAD INVENTION LICKS NYLON TIRE CRACKING

Million-mile road test proves new tread ends cracking problem . . . and gives amazingly better traction, up to 19% more mileage!

Nylon *shrinks* when heated. Tread designs originated for other cords lead to cracking when used for nylon. But now, Armstrong offers you the first truck tire conceived and developed to use *all* of nylon's tremendous toughness – really makes nylon "pay off"!

Fleet road tests show: (1) No cracking whatever; (2) Traction up 30% over average truck tire; (3) Mileage increased up to 19%; (4) Excellent stability – front or rear; (5) Best-ever resistance to bruising and road damage. *Get the facts on the "Miracle Miler" today!*

ARMSTRONG
MIRACLE MILER
"Designed for Nylon"

Another "first" from
ARMSTRONG RUBBER COMPANY West Haven, Connecticut

HUBERT I. KENNEDY of National Transit Corp., Ohio, scored again, successfully defending the title he won last year in the three-axle tractor semi-trailer class. Mr. Kennedy drove a model A-180 INTERNATIONAL tractor.

International Harvester salutes LEO W. FORD of Pilot Freight Carriers, Inc., North Carolina, winner in the straight truck class and of the Morgan Memorial Award. Mr. Ford drove a model A-160 INTERNATIONAL Truck.

THEY MADE

Meet the national champions in four of the five championship classes at the American Trucking Associations' National Truck Roadeo. International Harvester is particularly proud to salute them because they *all* won with INTERNATIONAL Trucks!

Over 50 of the best drivers in America were entered in the National Truck Roadeo at Miami in November. These were the men named champions in state and regional competitions.

They gave a superb demonstration of scientific driving skill, cool judgment and all-around professional ability. Every member of the trucking industry can be proud of every driver — and especially of the winners.

History was made when the champions were announced.

INTERNATIONAL

In the four-axle tractor semi-trailer class, ROBERT E. RUDESILL of Glendenning Motorways, Inc., Minnesota, emerged victor in a contest that was close all the way. Mr. Rudesill piloted an INTERNATIONAL model V-205 tractor.

Winner in the five-axle tractor semi-trailer class was FLOYD F. BROWN of Motor Cargo, Inc., Wisconsin. Mr. Brown won his championship at the wheel of an INTERNATIONAL model ACOF-195 Sightliner tractor.

HISTORY AT MIAMI!

Four out of five winners drove to victory with the same make of truck. It was the first "straight truck to five-axle" sweep for any single truck manufacturer.

Why did all these champions choose INTERNATIONAL Trucks when the chips were down? For the same reasons professional drivers and fleet operators choose INTERNATIONAL Trucks every day . . . they're designed and engineered for safety, comfort, handling ease, and all-around top performance.

International Harvester Company, Chicago
Motor Trucks • Crawler Tractors
Construction Equipment • McCormick®
Farm Equipment and Farmall® Tractors

TRUCKS . . . . *Choice of Champions*

Tomorrow's Looks...

Continued from page 100

"Rambler — Rambler's styling continues to be completely unimaginative. The rear fender treatment is unquestionably one of the worst in the industry.

"Thunderbird—Last year's four-passenger Thunderbird was unquestionably the freshest new car design of 1958. The 1959 model is essentially the same car. The Thunderbird offers dramatic evidence that it is possible to achieve sleek lines, and good proportions without resorting to tremendous length."

SAE in Detroit (Jan. 13) will get a sampling of Big Three styling for the future and all signs point toward a continuation of present trends, including some of the characteristics criticized by Sundberg and company.

Robert H. Maguire, chief stylist, Interior Studio, Ford Motor, says cars are so well made and engineered that "Now the car buyer seeks out that product which is most pleasing to the eye."

Looking ahead, Maguire said, "The things you see here may never come to pass. At best, they're well into the future, because they assume that there will be some rather drastic changes in American automotive transportation in years to come.

"As an example, here's the solarium or what could be a huge passenger-carrying vehicle for future highways. In the dining area, we have form-fitting seats for the passenger's complete relaxation. At the rear is a parlor with club-car seating for conversation and television viewing.

"This land cruiser is designed for automatic control, as you can tell by the radar screen in the driver's compartment. The overhead glass area is supported by struts running fore and aft. Since this vehicle is designed principally for long or intermediate distances there is enough room for passengers to move around.

"Freedom of movement on the part of passengers might even be applied to the American luxury car, which for years has remained virtually unchanged in basic concept, so far as its interior is concerned. Perhaps it's time for us to look at a new concept.

"This might lead to the development of an interior with a separate driving area, while the remainder provides living room comfort and facilities.

"A bench-type lounge sweeps around the rear and one side of the vehicle. The two armchairs swivel to face one another. The only manual control in front of the driver is the steering bar. All other controls are carefully grouped around the driver.

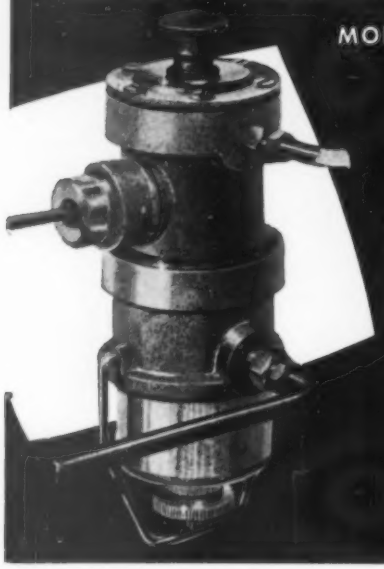
"When you consider these vehicles in the light of present-day

Continued on page 108

ALL-NEW FROM STEWART-WARNER...

MODEL 240-A

electric fuel pump



- for cars, trucks and all gasoline engines
- Models with single or dual pumps

FOR INSTANT STARTS... AND CONSTANT, POSITIVE FUEL FLOW BOTH WINTER AND SUMMER!

Highest delivery rate! Up to 60 gallons per hour, with oversize piston, coil and power spring.

Adjustable pressure! Pump can be easily adjusted from 1 PSI up to 7½ PSI to give exact shut-off pressure required by any carburetor.

Built-in automatic pressure regulator! Prevents flooding and starving. Maintains desired pressure at carburetor . . . gives smooth, steady fuel supply . . . eliminates surging.

Built-in fuel filter! Extra-large reservoir and oversize filter element.

Easy wiring and installation! Battery can be either positive or negative ground.

Serviceable in field! Routine maintenance—even complete overhaul—can be done by your own service personnel.

Minimum inventory! Just two models—6-volt and 12-volt.

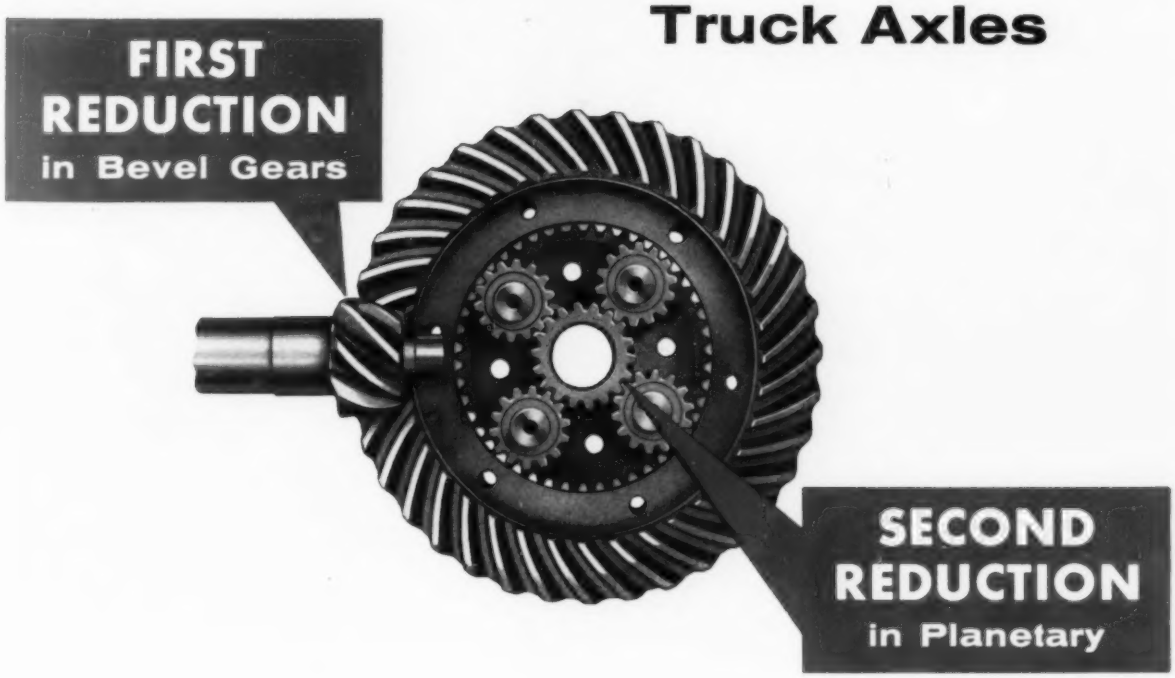
See your wholesale supplier for details!

Symbol of SW Excellence

INSTRUMENT DIVISION
STEWART-WARNER CORPORATION

1840 Diversey Parkway
Chicago 14, Illinois

A New Concept in Double Reduction Truck Axles



Eaton Planetary Double Reduction

Gives You these Important Benefits!

Save Weight—Size for size, Eaton PDR Axles weigh less than conventional herringbone or spur gear axles, permit truckers to haul more legal payload.

Last Longer—In Eaton PDR Axles, gear tooth loads are equally distributed over four rugged "planet" gears; stress and wear are reduced, resulting in materially longer axle life. Eaton's forced-flow lubricating system provides positive lubrication to all moving parts, even at slowest vehicle speeds—a feature not available in other double reduction axles.

Cost Less to Maintain—When and if repairs are necessary, parts are readily available—most of them interchangeable with other Eaton Axles. Simple construction—similar to the famous Eaton 2-Speed Axle, with which all truck service men are familiar—holds maintenance labor to a minimum.

Previously, double-reduction axles have been available only in the extra heavy-duty sizes. Eaton PDR Axles are available in a wide range of sizes—the last word in equipment to meet the demands of today's hauling conditions. By actual comparison they cost less to buy, less to maintain. They have established outstanding performance records in all types of heavy-duty operation.

EATON

Ask your Truck Dealer for Complete Information about Eaton PDR Axles

EATON

AXLE DIVISION
MANUFACTURING COMPANY
CLEVELAND, OHIO

more air reserve for safer braking...

Wagner ROTARY AIR COMPRESSORS

provide rapid pressure recovery to assure ample air at all times

Wagner Rotary Air Compressors have what it takes to deliver a constant and smooth flowing supply of compressed air at all times. Their ability to provide rapid pressure recovery means safer stopping power even under the most severe braking conditions.

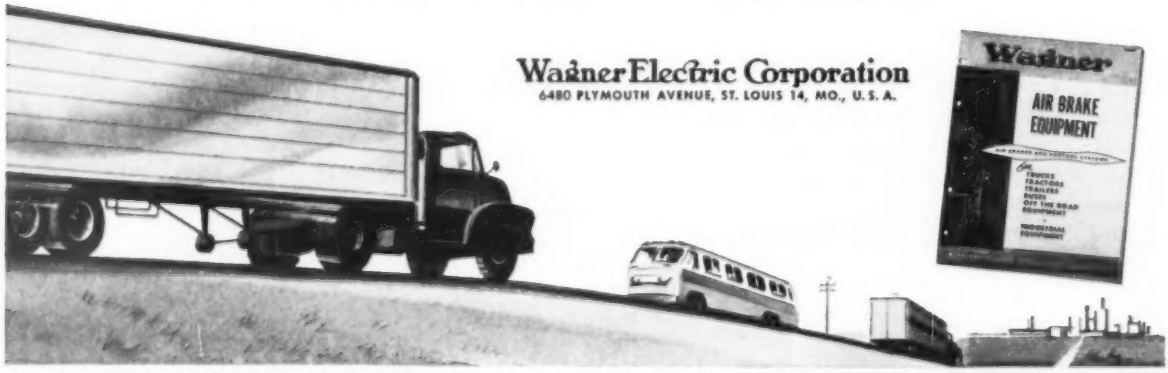
Rotary compression forces all air from the compression chamber. Oil and air are separated and cooled before air is discharged to prevent carbon formation in air lines. All rotating parts are turned by the rotor shaft which is suspended on two bearing surfaces to lower friction loss. Uniform torque load with moderate stresses assures smooth, quiet operation with long belt life even at high compressor speeds.

Field tests and fleet records show that Wagner Rotary Air Compressors help keep air brake maintenance costs down. Their exceptionally long service life and easy, infrequent preventive maintenance adds up to greater economy . . . greater performance . . . greater safety. Available in either 9 C.F.M. capacity, air or water cooled; or 12 C.F.M. capacity, water cooled.

For full information about these compressors and details on complete Wagner Air Brake Systems and Equipment for trucks, trailers, tractors, buses and off-the-road equipment, send for your free copy of Wagner Catalog KU-201.

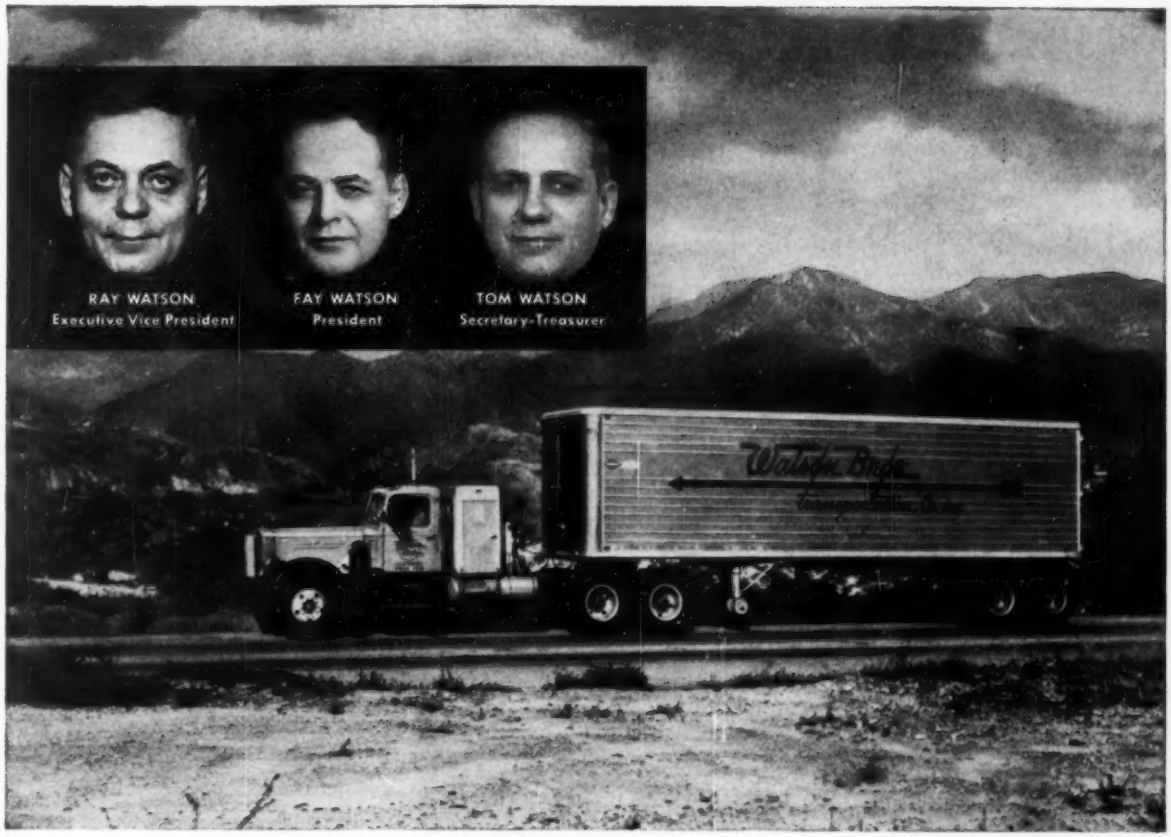
WK59-2

Remember, when ordering new equipment, be sure to specify Wagner Air Brakes.



Wagner Electric Corporation
6480 PLYMOUTH AVENUE, ST. LOUIS 14, MO., U. S. A.

LOCKHEED HYDRAULIC BRAKE PARTS, FLUID and BRAKE LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES



WATSON BROS.

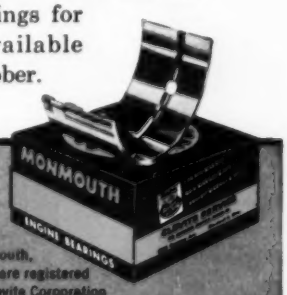
rely on the rugged performance of CLEVITE 77!

You know Watson Brothers Transportation Company, Incorporated as one of the ten largest fleets in the country. In 1940, Watson units traveled only 8,000,000 miles. Today, more than 2,700 units pile up over 160,000,000 miles a year—that's seven times around the world every day.

An important contributor to Watson's success has been the astute purchasing and maintenance procedures adhered to over the years—procedures assuring maximum on-the-job performance. Clevite 77 bearings have been a long time partner in this efficient and profitable system. Why?

Because no other bearing can offer the fatigue life you get in Clevite 77's patented trimetal construction. Copper-lead alloy, cast onto a steel back, can carry greater loads than any other bearing material. And a .001" electro-plated babbitt overlay provides an ideal running surface. Only Clevite 77 offers these combined benefits.

Use Clevite 77 bearings in your next overhaul—you'll want to make them a partner in your own maintenance program. Immediate service on Clevite 77 bearings for your equipment is available from your N.A.P.A. jobber.



Monmouth **ENGINE BEARINGS**

CLEVITE SERVICE: Cleveland Graphite Bronze • *Division of Clevite Corporation* • Cleveland 3, Ohio

The words Monmouth, Clevite and Mirco are registered trade marks of Clevite Corporation

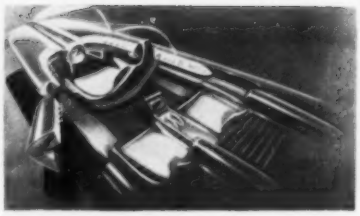
Tomorrow's Looks...

Continued from page 104

highway conditions, they probably strike you as being somewhat impractical. But keep in mind that our highway system may undergo some radical changes in the years to come.

"I doubt that cars of the future will ever be restricted to the land cruiser alone. More probably, we'll always have to have a certain number of smaller cars for short jaunts to the local shopping center, to school or to the office.

"You might make such trips in a smaller car (see right). Here again we find the form-fitting seats, a single seat forward for the driver and two rear seats for passengers. There's a dual-grip steering arrangement, and the instruments are set into binnacle-type steering column. All of the controls are in the door panels and in a sweeping forward panel. The roof might lift



automatically as the doors are opened to provide easier entry into the car."

J. B. Bidwell, head of Engineering Mechanics Department, General Motors Research Staff, pointed out:

"**The past trend** has been toward refinements providing easier operation, greater comfort, convenience and improved performance.

"Recently criticism of the automobile industry has been based on the premise that transportation of people and goods is the sole function of the automobile, and increases in size, comfort and power have been deplored. Critics have ignored the expressed desire of the average car buyer for greater convenience, comfort and luxury, even at the expense of higher first cost and operating cost. They have forgotten that a passenger car must be capable of carrying the maximum number of passengers the owner will ever require, even though the average load is 1.8 persons.

"It must be able to carry all of the family luggage at vacation time even though all the rest of the year the trunk may be empty. It must have sufficient power to negotiate the steepest hill or accelerate at a reasonable rate even though its level road power requirements may be only a fraction of its maximum power. It must be more than simply transportation, just as our houses are more than shelter from the elements."

Bidwell goes on to say, "The fact is that the American economy is not geared to subsistance alone, but to luxury and convenience. Some of our greatest consumer industries are based on entertainment, comfort and pleasure—not necessities. In this light, recent trends in passenger cars seem reasonable and some extension to the future may be made.

Continued on page 122

the only part that's left out of

The Engineered
BRAKE PARTS LINE

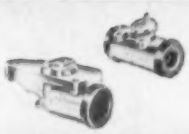
EIS

POWER BRAKE PARTS AND KITS

MASTER CYLINDERS

RIBBED CUPS

SAE SUPER BRAKE FLUIDS



WHEEL CYLINDERS

All you'll ever find in the Brake Parts Line is **Safety-Engineered Parts** designed for maximum stopability. Nothing has been left to chance—nothing has been left undone.

To insure your peace-of-mind and the safety of your customers, make sure you use EIS—**The Engineered Brake Parts Line!**

If you're interested in a continuous pattern of higher net profits, (and who isn't), **it will pay you to contact your EIS Distributor.** Write for Catalog.

EIS AUTOMOTIVE CORP., Middletown, Conn.

SEE US AT THE CHICAGO SHOW — BOOTHS 185 to 191

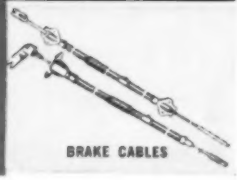
"E" Series CUPS

FILLER TYPE CUP

PLAIN CUPS

RIBBED SECONDARY CUPS

MASTER AND WHEEL CYLINDER REPAIR KITS



BRAKE CABLES

In one respect they're all alike...
ALL NEED—
Prescription Filtration

THIS IS WIX PRESCRIPTION FILTRATION

WIX Oil and Air Filter Cartridges provide a comprehensive selection of filtrants, enabling you to precisely suit the individual performance characteristics of every vehicle.

WIX-KNIT—The exclusive WIX Premium Filter Cartridge for Premium Oils.

POROSITE—WIX Full-Flow Cartridges that feature exclusive POROSITE formulas.

WIXITE—The famous HEVI-DUTY depth-type Cartridge that has never been surpassed.

SPIN-ON—Another WIX "First" . . . original equipment on America's leading cars.

POLYMITE®—Great new WIX Dry Type Air Filter Cartridges famous for performance.

Fleets look to WIX for Filtration because WIX...*and ONLY WIX*, provides Prescription Filtration. This is expressly engineered filtration that considers the individual characteristics of the engine and the type of service performed. This is filtration that assures trouble-free operation, longer maintenance intervals, minimum engine repairs and increased productivity across your whole fleet.

Ask your jobber about money-saving WIX-PAX Service that brings you top quality WIX Cartridges in direct factory shipments! Get your FREE Filter Survey by a factory expert...the WIX Fleet Manual that provides a complete maintenance record for every vehicle "at a glance". Write today for complete information.

wix® FILTERS

WIX CORPORATION
GASTONIA, N.C.
In Canada: Wix Corporation Ltd., Toronto

WIX CORPORATION DEPT. F.O.-1
GASTONIA, N.C.

Please send particulars on how we can save money through WIX-PAX and WIX Prescription Filtration.

Name_____

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Address_____

City_____ Zone____ State_____

Autocar

BROCKWAY Huskie

CHEVROLET

DIAMOND T

GMC

DODGE TRUCKS

Ford

FWD

Leece-Neville Alternator-Generator Systems are available as factory-installed special original equipment through these manufacturers.

Specify Leece-Neville Alternator-Generators on your new trucks.

IH

KAISER WILLYS MOTORS

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Mack TRUCKS

MARMON HERRINGTON Safe-Way

OSHKOSH 4 WHEEL DRIVE 6

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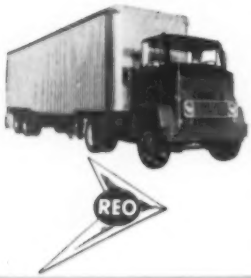
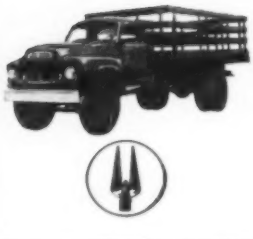


REO



WALTER

White

HOW LEECE-NEVILLE ALTERNATOR-GENERATORS END BATTERY AND ELECTRICAL BREAKDOWNS

For several years one of the most common sources of road failure has been the electrical system—batteries, generators, regulators, lights and the like. Since 1946, thousands of truckers have discovered that one bit of preventive maintenance practically eliminates this type of road failure. They installed Leece-Neville Alternator-Generator Systems!

Regardless of the type of service—stop-start, short run, or over-the-road—Leece-Neville Alternator-Generators outperform and outlast conventional DC generators. L-N alternators produce enough current, *with the engine idling*, to handle normal electrical loads and keep the battery charged. High speed operation can't harm the L-N alternator. See other advantages listed below.

Heavy Duty L-N Alternator System

Recommended for heavy duty and highway service. Capacities: 6 volts, 95 amps; 12 volts, 60 amps (higher capacities available). Installed with companion regulator and rectifier.

Standard L-N Alternator-Generator

Recommended for light "in town" service. Capacities: 6 volts, 60 amps; 12 volts, 50 amps (higher capacity systems available). Installed with companion regulator and rectifier. Costs no more than most conventional heavy-duty DC generators.

The L-N Alternator-Generator is a cost-cutting workhorse!

- **Produces enough current with engine idling to carry normal electrical loads**
- **Ample low-speed output . . . safe high-speed output . . . long life**
- **Improves performance and cuts maintenance costs for entire electrical system**
- **Permits full use of all accessories at all speeds**
- **Assures easy starting even in the most severe weather.**

QUALITY AUTOMOTIVE ELECTRICAL EQUIPMENT

Leece-Neville

SINCE 1909

Specify Leece-Neville Alternator-Generators as factory-installed original equipment on your new trucks.

HERE'S HOW TO GET ALL THE FACTS!

Find out now how Leece-Neville Alternator-Generators can drastically reduce down-time and maintenance expense caused by electrical system failures. Contact your local truck dealer or L-N distributor. Or merely fill in and mail the coupon at the right. No obligation, of course.

TO: THE LEECE-NEVILLE COMPANY
DEPT. FF-2—CLEVELAND 3, OHIO

☐ *Please send me literature on your L-N Alternator-Generator Systems.*
☐ *Have your salesman call on me.*

Type of Service: ☐ Stop-Start ☐ Short Run ☐ Over-the-Road ☐ Off-the-Road

NAME_____ TITLE_____

COMPANY_____

ADDRESS_____

CITY_____ STATE_____

McQUAY-NORRIS PHOSALLOY is the answer

for Heavy-Duty Piston Rings for Truck and Bus Fleet Users

PHOSALLOY...

Another McQuay-Norris exclusive! A special electric furnace alloy that gives McQuay-Norris heavy-duty rings unusual tension-retaining qualities! And that's not all. Top rings are chrome plated. Oil rings include special cam-shaped, pre-lapped steel rails—Chrome-Armored for unusually long wear. Here's what it means to you: the most reliable heavy-duty piston rings available anywhere!

CHROME CONTROL

LEAK-PROOF PISTON RINGS

the most *Power-Packed* rings in the world!

McQUAY-NORRIS MANUFACTURING CO. • ST. LOUIS • TORONTO

FLEET OWNER

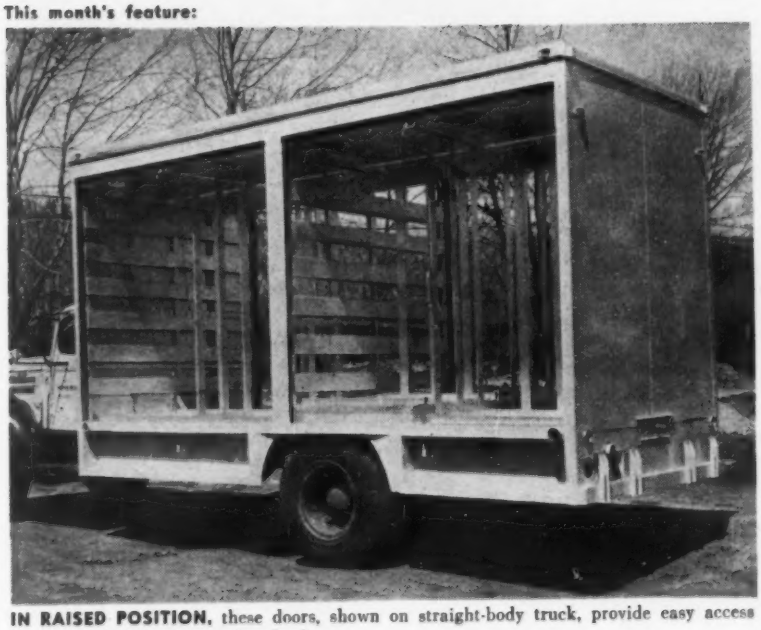
AUTOMOTIVE

Showcase

8 PAGES OF NEW PRODUCTS FOR THE FLEET OPERATOR

JANUARY, 1959

This month's feature:



IN RAISED POSITION, these doors, shown on straight-body truck, provide easy access for mechanical loading and unloading.

Loading Problems? These Roll-Up Doors May Be Your Answer

THESE NEW OVERDOORS, opening on either end and both sides, are made by the Barber-Colman Co., Rockford, Ill., for enclosed delivery trucks, straight-body trucks, and cargo-hauling trailers. Utilizing basic operating principles of overhead door operation, they are available in standard and custom sizes. They have Weather King sections, and manufacturer claims they provide strength, low cost and minimum maintenance.

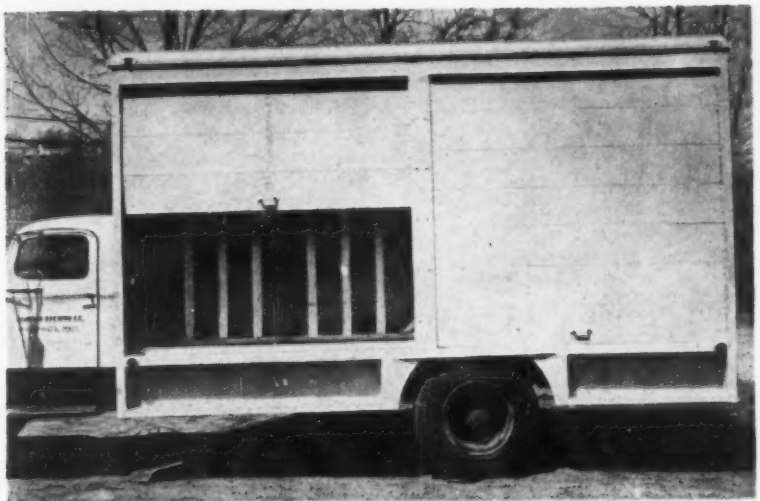
PALLET LOADING is made practical because of the larger-size openings. When either end or side doors are open, a truck or trailer may be parked against a loading dock so fork trucks can be used without special ramps or platforms. Also, cargo space may be opened to a greater extent, to simplify loading even further.

TIME SAVINGS at loading areas are important as the driver doesn't have to get out of his truck to open doors until he has backed it up against the dock. And, the door can be closed, and locked if required, before the truck pulls away. There are no side clearance problems or danger of damage, as the doors don't project from the truck or trailer body sides.

DOOR MAINTENANCE is minimal because doors are designed to open many times without strain on the working parts. Rollers are subjected to more wear than any other part, so ball-bearings with a large shaft, large steel balls and large diameter, case-hardened ball race are specified.

A one-piece steel tire is formed around outside of bearings to insure a rigid assembly, and there are no expensive hinges or other hardware to replace often.

Additional specifications on the OVERdoors include: oil-tempered torsion springs attached to door with air-craft cables which counter-balance door; heavy-gage formed steel track; weatherstripping to seal door shut and cushion against shock; and shiplap weatherproof door joints.



IN CLOSED POSITION, doors are flush with side of truck. Weather stripping assures proper seal, cushions shock.

Batteries

BATTERY CHARGER trademarked Supercharger (Model 588) can now be used for 8, 16 and 24-volt batteries, as well as standard 6 and 12-volt car, bus and truck batteries. Its output is 100 amps into 6v batteries. Pushbutton and lever switch permit 12 different charging rates. *Fox Products Co, 4720 N 18th St, Philadelphia 41, Pa.*

NEW, LOW-COST BATTERY CHARGER—6 and 12 volts. Three wheeled and two portable models are available. Two models are 100/50 amp and include silicon rectifiers. Pushbutton controls are offered on three models. All models combine fast and slow charging and can be used as boosters to start stalled vehicles. Included in the Tru-Charge line is a new battery tester, Model 16-16. *Allen Electric and Equipment Co, Kalamazoo, Mich.*

VERTICAL MOTOR-GENERATOR CHARGERS for electric industrial truck batteries. The new Electric Products chargers come in four sizes and provide a choice of 25 different ratings. They mount on girders and walls leaving floor space free for other equipment. Chargers have 2, 3 and 7½-hp ratings and are designed for 2 and 3-phase, 60-cycle operation at 220, 440 or 550 volts. *Exide Industrial Div, The Electric Storage Battery Co, Philadelphia 7, Pa.*

MOBILE BATTERY CHARGER (type MC-10C), features a Silicon Rectifier guaranteed for five years. Charger provides rates of 100 amp on 6-volt, 50 on 12-volt. Push buttons control charging rates. *Willard Storage Battery Div, PO Box 6266, Cleveland 1, Ohio.*

12-VOLT BATTERY CABLES feature high-rise offset claimed to eliminate possibility of grounding. Walker terminal is constructed of corrosion-resistant, pressure cast lead-alloy or brass, with steel core imbedded in lead-alloy terminal for greater strength. *Walker Brothers, Automotive Div, Conshohocken, Pa.*

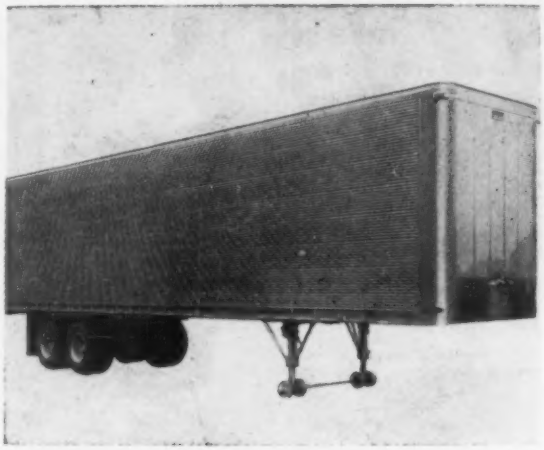
NON-ACID STORAGE BATTERY designed for the commercial and industrial user. Reactions are claimed to be similar to any wet storage battery containing sulfuric acid type fluid, minus the undesirables resulting from employment of such type of fluid. It is recharged the same as batteries containing acid. *Sinco Products, Inc, PO Box 5215, Beacon Hill Station, San Antonio 1, Tex.*

SMALL AND FOREIGN CAR BATTERY. The new model is approximately 7 in square and exceeds all service requirements of the Volkswagen (US models 1955-1958) Jaguars and XK-120 (1950-1954) and XK-140 (Fixed head coupe 1955-1957) as well as the British-built MG (MGA-1956-57) and German-made Opal (1957-58). Available either wet or dry-charged. *The Electric Auto-Lite Co, Toledo 1, Ohio.*

EMERGENCY BATTERY KIT is designed to hold a 12-volt battery and can be carried to stalled car or left attached to service vehicle and power transferred through 10-ft cables. Separate base mounts permanently to service truck. An outlet for a trouble light is included as well as insulated openings for booster cables. *Triple A Specialty Co, 2101 W Walnut St, Chicago 12, Ill.*

BATTERY WITH REPLACEABLE PLASTIC CELLS for trucks, buses, passenger cars, diesels, etc. "Auto-O-Cel" battery comes in high-tensile plastic case which manufacturer claims transmitts heat faster. Cells quickly interlock to form batteries of all popular sizes; one heavy-duty 6 volt battery consists of 3 cells; 8-volt, 4 cells; 12-volt, 6 cells, etc. *Auto-O-Cel Co, PO Box 220, Des Moines, Iowa.*

BATTERY HOLDDOWN (HD91) is adjustable to fit side, end, stepdown, 3-point and offset mountings. Comes packaged complete with all necessary clamps, in an illustrated box showing methods of application to various battery designs. *American Motor Products Co, Fond du Lac, Wisc.*

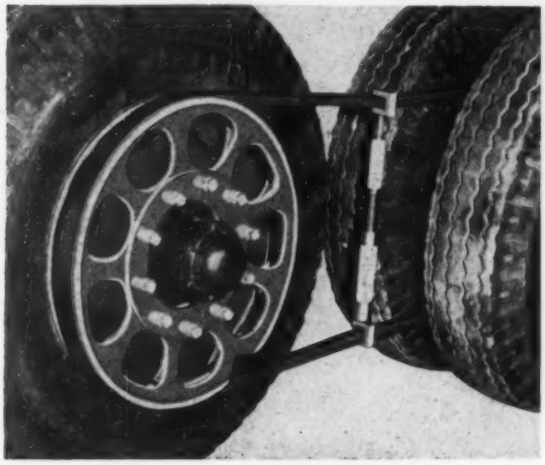


1958 Stainless Steel Trailer

Featuring horizontal corrugations and a unique rub-rail configuration, the new Van offers operators added payload with no increase in weight. This is made possible through a new thin upper coupler design. Corrugations are ¼ in. high, ⅝ in. wide on 1½ in. centers. Electronic welding permanently fuses side corrugations to tough stainless vertical hat-shaped posts. Two way structural strength is accomplished in the roof—crosswise with hat-shaped roof bows, and length-wise with integral ribs. Fabricated by Fruehauf, the new stainless line will comprise straight and drop frame vans, open tops, and refrigerator trailers with single or tandem axle underconstruction. *Fruehauf Trailer Co, Detroit 32, Mich.*

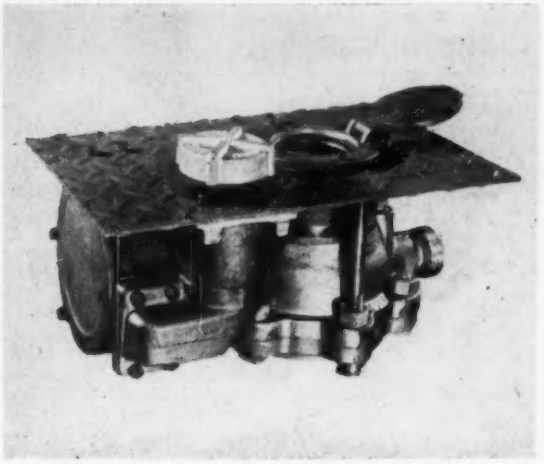
Lightweight Dump Body

The new Twin Yard Bird is a lightweight dump body made specially for one-ton truck chassis. Constructed of 12-gage steel this body is claimed to do away with costly half loads on larger trucks. Powerful 8-ton lift capacity is provided by a twin head-lift high-pressure hoist. Maker says use of twin hoist provides double stability, strength, and lift power. Hoist has a full subframe to take stresses, and thus puts no strain on truck frame. It is driven by power takeoff from truck transmission. Twin Yard Bird bodies are available in lengths of 8, 9, and 10 ft. All bodies are 78 in wide. Both a 3 and 4-cu yd capacity are available in each body length. *Anthony Co, Streator, Ill.*



Tension Meter for V-Belt Drive

This device measures tension of the V-belt on its tandem drive, and permits adjustment of the drive to maintain correct tension throughout life of the belt. Maker claims that keeping proper tension results in longer operating life for belt and sheaves, besides giving efficient operation of the drive. Tension-O-Meter is placed on the V-belt between the tandem axles—when pressure is applied to the belt by screwing down the two ends of meter, an indicator shows if the belt is loose, tight or at correct tension. If belt is loose or tight, suspension radius rods are adjusted to extend or bring together the axle centers. Wheels don't have to be removed in order to use the meter. *Dayton Steel Co, Dayton, Ohio.*

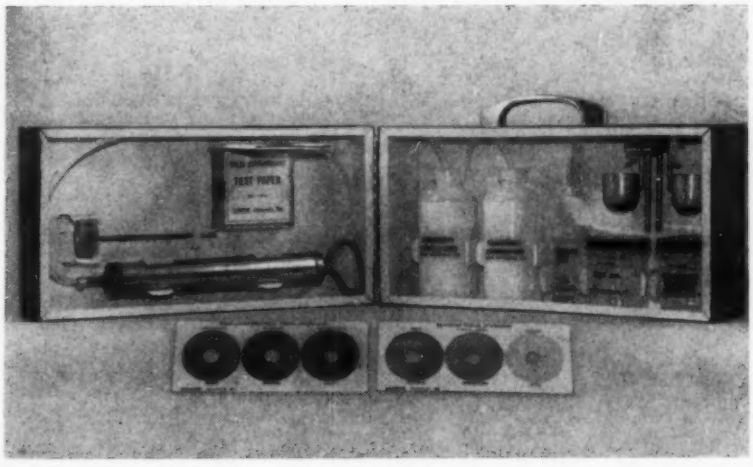


Fuel Purchase and Consumption Recorder

The O'Dell Fuel Recorder records a cumulative total of all fuel pumped into the tank, giving an indelible record of total fuel consumption. It enables the truck operator to sum up his fuel costs and check his fuel bills. The Recorder also makes it easy to maintain accurate checks on equipment in terms of carburetor and valve efficiency and mileage per gallon. Completely tamper-proof it is installed flush inside fuel tank, protected from accidental damage. Complete unit displaces only 1½ qt within tank. There are no cumbersome hoses or couplings to interfere with tractor components or trailer. Said to meet all ICC requirements. *Michigan Fleet Equipment Co, Grand Rapids 9, Mich.*

Car Battery Cells

The "Cellomatic" battery is composed of separate air-cooled cells that can be replaced individually, thus eliminating need of buying new battery when only one cell is defective. It features high-impact, nonporous polystyrene cells in an equally rugged polyethylene frame. Also featured is use of selenium which is said to prolong life of cell, and to cut down natural resistance to an electric current—thereby permitting faster charging at lower temperatures. *Scranton Battery Corp, Scranton, Pa.*



Portable Test Kit for Oil Contaminants

No lab technicians are required for use of the Simplex Oil Testing Kit, developed for the U. S. Government. Now available to private industry, it's said to quickly detect unsafe oil condition due to solids, fuel dilution or corrosive acids. To make the solid-contaminant test you place a drop of oil on the special paper provided and compare color of the oil spot with a color chart. This test also tells you whether water content is excessive. If a ring forms on edge of contaminants, water content is in excess of 2% by volume. To make the fuel-dilution test you compare fluidity of used oil with a previously prepared standard dilution sample. You place the two samples in cups with orifices at the bottom and observe the flow rates. For the acid test, you place a few ounces of used oil in same vial with few ounces of an indicator which is provided. You then shake and compare color with a color chart. All standards are U. S. Government and SAE. *Lengor, Towns-Worth Bld. Annapolis, Md.*

Shop equipment

PORTABLE STEAM CLEANER Model 200 has been added to Upgrader line of steam cleaners. Its output is 200 gal. of water or mixed solution per hour. The built-in self-mixing solution tank has 14-gal. capacity. The 500-lb model has pressure atomized burner (forced draft) system and includes a safety switch gun handle which shuts steam off when trigger is released. Both natural gas and fuel oil (No. 1 or 2) fired models are available. *Vapor Heating Corp, 6420 W Howard St, Chicago 31, Ill.*

HYDRAULIC LIFT FOR CARS simplifies handling of standard or foreign models. Car is merely driven over lift, then adjustable arms are rotated to contact points of car's frame, and car is ready to be lifted. Specifications include: capacity 8000 lb; superstructure—over-all length 82 in. (extended), overall width 8 ft 68 in; rail length 69 in., width 6 in., height 2¾ in. *Cochin Manufacturing Co, South San Francisco, Calif.*

WORK BENCH added to Lyon line. The 48-in. bench is 34 in. high, and is made in 28 and 34-in. depths. It is available with plain steel, tempered pressed wood over steel or laminated hardwood top. Accessories include shelf, electrical outlet strip, riser, channel-type stringer and bench drawers. *Lyon Metal Products, Inc, Aurora, Ill.*

PORTABLE EMERGENCY STARTING UNIT trademarked Delco Start-O-Pak, weighs 16 lb and enables one man to start a 6-volt or 12-volt vehicle. Cables are "electrically dead" until Start-O-Pak is activated by remote control button, eliminating sparking at battery terminals and chances of fire or battery gas explosion. *United Motors Service, Div of General Motors, Detroit 2, Mich.*

PORTABLE TEST STAND. The fender-high stand (Model T-32) is equipped with two instruments: a Niehoff T-30 Dwell Meter for setting contact points and cam angles, and checking distributors; and a Niehoff TS-31 Tachometer, for setting engine idle mixture, checking carburetor and checking distributor advance. *C E. Niehoff & Co, 4925 W Lawrence Ave, Chicago 30, Ill.*

MECHANIC'S WORK PLATFORM (Model G-612) is designed to project mechanic over the fenders of back-opening hoods or the radiator of conventional front opening hoods, putting hard-to-reach distributors, carburetors and fire-wall mounted controls within easy reach. The Grigg Top-Side Mechanic's Creeper is raised in six stages from a closed position of 40 in. to a fully extended height of 52 in. Safety features include non-tilt tripod construction, three mounting steps and hand rails. *Grigg Specialty Tools, 8103 Marbrisa Ave, Huntington Park, Calif.*

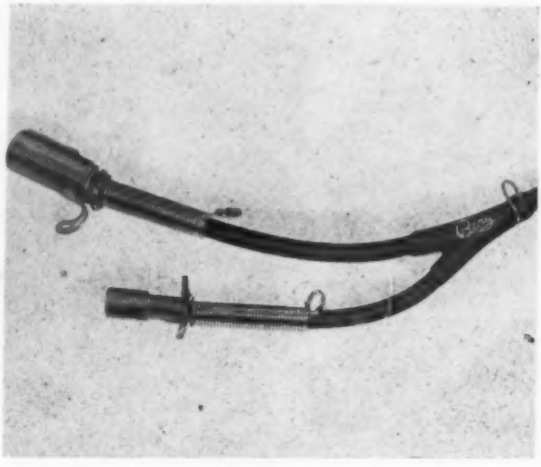
PRECISION BENCH SHAPER with automatic pressure lubrication system. Lenth of ram stroke is 0 to 7 in. Rocker arm shoe is graduated to indicate length of stroke. Stroke rates range from 42 to 195, and cutting speeds from 3 to 114 ft. per minute. Tool head has 3-in. feed, swivels to any angle. Table is 6-5/16 in. long, 5 in. wide and 5⅜ in. deep. *South Bend Lathe Works, South Bend 22, Ind.*

QUICK-CHECK ROD ALIGNER (TN-11) has an extended checking surface to permit checking of the newer short-stroke connecting rods for bend, twist, and offset. Claimed ideal for checking all short "over-square" V-8 rods. *Sunnen Products Co, 7910 Manchester Ave, St. Louis 17, Mo.*

TORSION-AIRE HEIGHT GAGE designed for use on all Chrysler equipment with Torsion-Aire suspension. Gage consists of a metal frame 16 in. long, with an arm at each end and with an easy-to-read liquid level mounted on frame between arms. The liquid level is equipped with a two-sided scale calibrated in increments of 2 deg, and measuring up to 40 deg on either side of zero. *Snap-on Tools Corp, 8028—28th Ave, Kenosha, Wisc.*

V-Band Tube Joint

Especially designed for truck, bus and construction equipment exhaust systems, and for stationary-engine ducting, the new Marman "Service Master" V-Band Tube Joints are claimed to reduce servicing or part-replacement down-time to a minimum. As its two bolts are tightened, the Service Master's V-shaped internal surface exerts an inward radial force. This wedges the two flanged tubing ends together with an even contact around the entire circumference. No special gaskets or tools are needed to make repair. These V-Band tube joints are available for 3½ and 4 in. OD tubing, and from 1½ and 4½ in. *Industrial Sales Dept, Marman Div, Aeroquip Corp, 11214 Exposition Blvd, Los Angeles 64, Calif.*



Duo-Cable Assembly

The Duo Cable Assembly provides a new method for the trucking industry to eliminate faulty, makeshift wiring while simplifying electrical interchange. Assembly carries two different Berg male connector plugs on the tractor hook-up end of the cable. It consists of rubber cable that has been factory molded at the splice to form a cable which can be wired with two different kinds of connectors, using only a single source of current. Available in 16 different combinations with or without Berg 4, 6 and 7-way male plugs factory wired to one or both tractor hook-up ends of the cable. Overall lengths available are 10 and 14 ft. *Berg Mfg & Sales Co, Inc, 1712 S Michigan Ave, Chicago 16, Ill.*

Twin-Leg Bumper Jack

The Ausco Saf-Lift twin-leg bumper jacks have been newly designed to accommodate all automobile bumper contours. Smaller wheels and longer overhang on the new cars present no problem to the Saf-Lift because of its effective low height of 2¼ in. To conform to bumper contours, the "king-size" load hook is hinged to the malleable iron lifting nut. Lifting contact can be made at either top of load rest or at bottom hook providing dual lifting points. *Auto Specialties Mfg Co, St. Joseph, Mich.*

Automatic Wrench

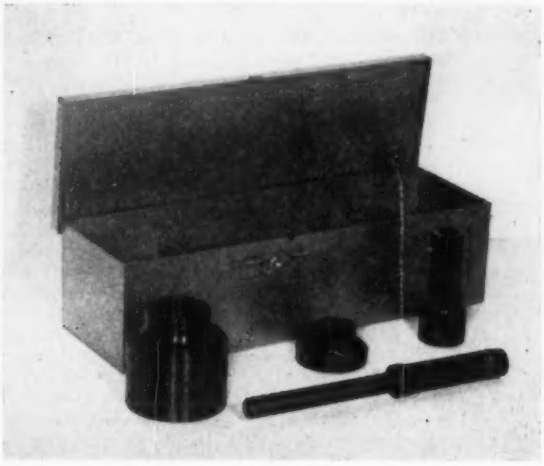
The new "Flikit" instant grip automatic wrench adjusts with a flick of the wrist. No fingertip or manual adjustment is necessary. Jaws close automatically on whatever size nut is to be tightened or loosened —whether square or hex—and eliminate the necessity for a complete set of ordinary wrenches. Available in three sizes: #1 has jaw opening of 3/16-5/8 in; #2 has openings of 3/8-1 1/8 in; #3 has openings of 9/16-1 9/16 in. *Custanite Corp, 1228 Utica Ave, Brooklyn, N.Y.*

Vulcanization Unit

Manufacturer claims that this is an efficient method of repairing tubeless punctures "on the wheel." Unit produces a cold vulcanizing repair to permit recapping of the tire. Disposable repair unit—Rama "Auto-Matic"—contains in its metal construction a compressed rubber plug and self-piercing double-action cement cartridge. One push supplies lubricating shot of cement; plug is then inserted and a second shot seals it. *Remaco, Inc, 11 Park Pl, New York 7, N. Y.*

Two-Speed Drill

The new Shopmate drill, model SD-382, has a 2000 rpm speed for drilling wood, plastic and all other light materials, and a 1000 rpm speed for heavy duty drilling. According to manufacturer, both speed ranges develop full power. Drill is powered by an electro-mechanical transmission. Operator merely flicks speed-range select switch which interlocks with the on-off switch, to prevent damage to the tool, and speed is changed. Shopmate two-speed has 2.8 amp universal fan-cooled motor, precision geared chuck and key, ball thrust bearing, precision cut alloy steel gears, silver luster finish. This new Shopmate drill weighs only 4½ lb. *Portable Electric Tools, Inc, 320 West 83rd St, Chicago 20, Ill.*



Pin Inserter for Press-Fit Rods

Model B-190 pin inserter assembles and disassembles all press-fit type connecting rods used in Chrysler Corp. engines through 1958. An adapter set, B-60, used with the present B-12 pin inserter assembles and disassembles press-fit rods on all '58 General Motors and Ford Motor Co. engines. With B-190 pin inserter and addition of B-60 set to the present B-12 inserter, users can handle General Motors, Ford, and Chrysler engines using press-fit rods. Pin inserters remove the wrist pin and reassemble piston, rod and pin in one operation. Won't collapse piston or cock the rod during assembly, and a positive stop automatically centers the rod between piston bosses. *Sunnen Products Co, 7910 Manchester, St Louis 17, Mo.*

New literature

TRUCK-TIRE SERVICE MANUAL includes complete information on the matching of tires, the advantages of certain type rims over others, the latest load inflation tables, data on load distribution and truck weighing, a cost-per-mile chart. *Cooper Tire & Rubber Co, Findlay, Ohio.*

LIFT TRUCK MAINTENANCE BOOKLET offers a 32-point check-list for avoiding unnecessary repairs. Manual outlines a PM program that provides in-plant servicing by factory-trained personnel, includes up-to-the-minute condition reports designed to keep equipment operating at peak efficiency. *Towmotor Corp, Cleveland 10, Ohio.*

MANAGEMENT HANDBOOK to serve as a guide for measuring filing costs and results along with a detailed plan of action to improve filing efficiency. The 28-page manual is entitled "How to Measure Your Filing Costs and Efficiency." *Remington Rand Div, Sperry Rand Corp, 315 Fourth Ave, New York 10, N.Y.*

SUPERVISOR HANDBOOK entitled "Human Understanding In Industry." Designed specifically to help supervisor develop greater understanding of himself and his employees. Can be used as a basic text for supervisory training courses. A "Leader's Guide" for group discussions, is also available. *Science Research Assoc, 57 W Grand Ave, Chicago 10, Ill.*

ICC MOTOR CARRIER SAFETY REGULATIONS (revised edition of 1952). Included in text are definition of types of vehicles, requirements for operators, rules of the road, monthly reports, emergency conditions, etc. *Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.*

MOBILE RADIO EQUIPMENT GUIDE entitled "Under the Influence of Radio" shows the numerous ways radio is useful to drivers. *General Electric, Communication Prod. Dept, Electronics Park, Syracuse, N.Y.*

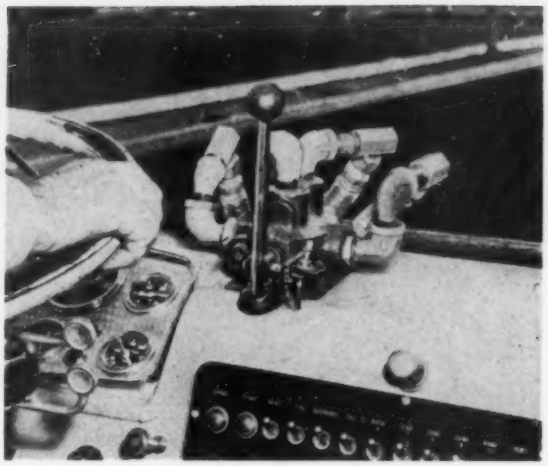
VEHICLE DIMENSIONS AND DESIGN CHARACTERISTICS are described in a 12-page illustrated booklet. Book was published to answer some of the problems connected with the physical dimensions and maneuverability of motor transport vehicles especially as they concern terminal facilities. Also outlined is a procedure on how to determine the best yard and dock dimensions to afford ease of vehicle handling. *Truck-Trailer Mfg Assoc, 710 Albee Building, Washington 5, D.C.*

ELECTRODE SELECTION is simplified in a 12-page Weldirectory, which describes the basic characteristics of each family of electrodes and differentiates between individual electrodes within the family—giving physical properties, current ranges, sizes and welding procedures for each electrode. *The Lincoln Electric Co, Cleveland 17, Ohio.*

PNEUMATIC-TIRED INDUSTRIAL TRUCKS (3000 to 5000 lb capacity range) are described in brochure which discusses operating characteristics. It cites critical elements such as body and frame, transmission, clutch and hoisting mechanism—points out type of designs that hold up under rough usage. *Hyster Co, 1003 Myers St, Danville, Ill.*

LUBRICANT CHART shows where Molykote should be applied. Chart indicates equipment on which the lubricant is said to excel, method of application, and benefits to be expected. *The Alpha-Molykote Corp, Stamford, Conn.*

SUPERCHARGERS are described in new catalog. It includes belt-driven exhaust-driven—and electric-powered units said to be of particular interest to truck owners operating in mountainous country roads, or towing loads that require power equal to or exceeding tractor's hp potential. Some handle engines up to 600 cu. in. *Oberhausen Engineering Corp, 4009 Ashford Rd, NE, Atlanta 19, Ga.*

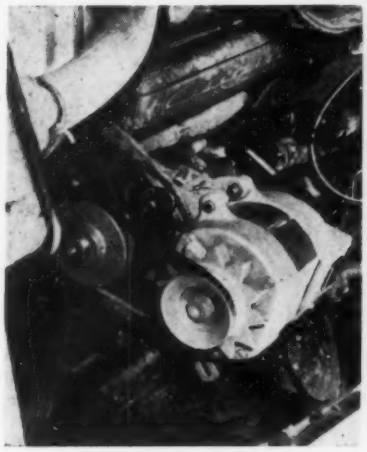


Separate Braking System

This new emergency system, installed on buses and trucks, functions apart from vehicle's regular air or vacuum equipment. It can be applied or released with or without using the foot brake. Principle of the system is a hydraulic ram actuating wheel's brake mechanism whenever driver chooses. A control unit, mounted on the dash, is actuated by a four-way valve with handy lever—a pull on the lever sets brakes to degree of pressure desired. Brakes release when lever is pushed forward. Also, 600 lb per sq in. hydraulic pressure is supplied by electric motor which starts as lever is pulled and runs until switched off, regardless of lever's position. *American Safety Brake Co, Inc, PO Box 58008, Los Angeles, Calif.*

Thin Velocity Governor

A very thin velocity governor has just been manufactured for "X" type carburetors. Only 1 in. thick, it is said to possess all of the company's patented features of a spark-advance transfer mechanism, diaphragm anti-cheat device, and cantilever spring. Quality bearings are used throughout to eliminate friction wear and assure long life, the maker claims. This new governor is available for Ford trucks, school buses and passenger cars which are equipped with two-barrel carburetors, as well as any other makes of engines that use the "X" type dual carburetor. Detailed information on this governor is contained in Bulletin FOC published by the manufacturer. *Hoof Products Co, 6543 South Laramie Ave, Chicago, Ill.*

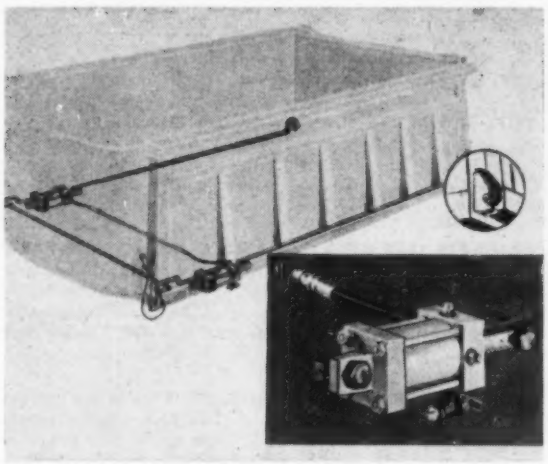


AC Generator

Designed for users of portable electric power tools, lighting, etc, the AC generator is a small, compact unit that mounts vehicle engines. (Universal Mounting Kit is supplied with the GenerAC.) New Model has a specially built rotor and stator, rated for continuous duty of 1000 watts at 115 volts, 60 cycles equal output from both 6 and 12 volt. The 115-volt output receptacles include grounding pin as used on portable power tools. *Electric Controls Inc, Wales, Wis.*

New Van Bodies With Increased Cubic Capacity

International forward-control multi-stop trucks are now available with a choice of factory-installed Metro, Metro Van, or Metro-Lite bodies ranging in capacity from 352 to 724 cu ft. Steel Metro Van models (12-ft 7-in., 14-ft 7-in., and 16-ft 7-in. van bodies) are available on model AM-160 chassis (14000-16000-lb gvw) with increased interior height and width dimensions providing capacities of 564, 644, 724 cu ft. Two smaller van bodies for light, bulky loads are available in 9-ft 6-in. and 10-ft 6-in. lengths; offered on model AM-120 and AM-150 chassis ranging in gvw from 5400 to 11000-lb. Metro-Lite series has been expanded with aluminum body in 9-ft 8-in., 10-ft 8-in., and 12-ft 8-in. lengths. Capacities are 352, 390 and 468 cu in. Bodies have fiberglass reinforced plastic front end section side panels and roof caps. Also available on Metro-Lite bodies is a "Poly-Chrome" metallic synthetic enamel finish said to save cost of paint job. *International Harvester Co, 180 N Michigan Ave, Chicago 1, Ill.*



Hydraulic Equalizing Cylinders

Installed in the tailgate tie-rod assembly of dump trucks, the hydraulic equalizing cylinders are said to assure complete load protection and greater safety. The pair of equalizing cylinders are connected to tie-rods and are adjustable to exert even pressure of up to 1000 lb psi on each of the locking lugs on tailgate. This uniform pressure is said to draw up both sides equally tight and to prevent loss of loads such as sand, gravel stone and other loads. It eliminates sprung tailgates and problem of building up worn locking lugs by welding. Do-it-yourself kit includes a pair of equalizing cylinders, plates, hoses for pipe connection between cylinders. *Mo-Bar Hydraulics, Inc, Crystal Lake, Ill.*

Air-Operated Seat Base Unit

The purpose of this Sky-Ride seat base is to help eliminate all shock, bumps, jars, encountered while driving any vehicle or operating equipment of any kind. Ride on seat is controlled. Any type ride desired is obtainable by merely adjusting front ride adjuster. Unit operates on air alone. A hand-operated pump is supplied for vehicles not having access to an air supply or with a 3-way valve for those that do. Approximately 5 lb of air is sufficient for an average driver. Unit is 90% aluminum, weighs approximately 30 lb. Impregnated with its own dry lubricant, manufacturer says unit requires no servicing in any way. *Eldervoy Manufacturing Co, Inc, 2910 E Imperial Highway, Lynwood, Calif.*

RECESSED DOOR-LOCK FOR UTILITY BODIES known as "Cleveland Flush Lock" has a drop-forged bolt and can be used for right or left applications. Positive handle action is said to assure that bolt is fully closed when handle is in flush position. Available with a key-lock claimed to be tamper-proof. *H. K. Porter Co, Inc, Forge and Fittings Div, Roselle, N.J.*

NEW LINE OF TARPAULIN SUPPORTS for open-top trucks. Known as Covered Wagon Bows, they're made of 1-in. steel pipe in an uninterrupted arch. Solid ¾-in. steel 6-in. legs at either end fit into bow sockets of any type open-top truck. Available with a 10-in. or 16-in. rise. Weight is about 10 lb. *Aero Canvas Products, 618 W Merrill, Indianapolis 25, Ind.*

HANDY 12-OUNCE PLASTIC SQUEEZE BOTTLE makes it easier for users of Aircosil flux to pinpoint its silver brazing where wanted. This is said to reduce evaporation to a minimum. *Air Reduction Sales Co, Div of Air Reduction Co, Inc, 150 E 42nd St, New York 17, N.Y.*

VISION HELMET FOR WELDING has lens area 4½ x 5¼ in. Two models are available accommodating lens shades 3 through 14. Welding helmet is constructed of full-gage vulcanized fibre with seamless design. *Air Reduction Sales Co, Div of Air Reduction Co, Inc, 150 E 42nd St, New York 17, N.Y.*

SOLDERING IRON called Magnastat automatically controls soldering iron temperature. Its tip has a special magnetized alloy that gains and loses its magnetic qualities with changes in temperature. Temperature at soldering tip is controlled to a plus or minus 2%. By controlling heat at iron tip, soldering tip does not become oxidized or pitted. *Weller Electric Corp, Easton, Pa.*

HOSE AND RE-USABLE COUPLINGS FOR REEFERS and air conditioning systems eliminate need for large inventories. The Freon 12 hose comes in 50-ft coils, and is said to operate satisfactorily in temperatures from minus 20°F to plus 250°F, with recommended maximum working pressure of 350 psi. It's available in five sizes, 3/16 in. to 5/8 in. ID. Available with complete package (assortment of couplings, hose and assembly mandrels) is 21-drawer steel cabinet. *The Imperial Brass Mfg Co, 6300 W Howard St, Chicago 48, Ill.*

OVAL-SHAPED FIVE GALLON SAFETY CAN for easier handling and storage. All seams are lap-joined and electrically welded into a single leak-proof container; terne plate construction is said to provide for inside and out lead-coating for greater resistance to corrosion. *Protectoseal Co, 1920 S Western Ave, Chicago 8, Ill.*

SPRAY-MOTOR CLEANER called Kleen-Off, is packaged in a 16-oz aerosol container for use in spray-cleaning motors of grime, grease, oil and dirt. *Heet Div, DeMert & Dougherty, Inc, 5000 W 41 St, Chicago 50, Ill.*

TRUCK REFRIGERATION UNITS (Models H-30 and HE-30). The hydraulic-drive units maintain thermostatically controlled temperatures down to 0°F in 10 to 14-ft trucks with insulation 4 in. thick or more—and medium temperatures, in the 32° to 50°F range, in trucks up to 18 ft long with insulation 3 in. thick or more. Inside body dimensions are 17x32x21 in. Model H-30 weighs 320 lb. Model HE-30, equipped with 3-hp electric standby, 220/240-volt, 3-phase motor is 395 lb. Reverse-cycle automatic defrost, with designed-in water blow-off eliminator for protection of cargo is available as optional equipment. *Hunter Mfg. Co, 30525 Aurora Rd, Solon, Ohio.*

HOSE-END KIT (BL-13) is designed for fast and easy repairs on most car makes and models. Kit consists of 36 popular hose ends in 12 styles and 20 ft of ¼-in. ID hose in a compact steel box. Price: $18. *Weatherlead Co, 2310 Dwenger Ave, Fort Wayne, Ind.*

GASOLINE LOCKING CAP is push-on type for standard 1½ in. ID filler neck and has an all die-cast construction. The new G-80s replace the stainless steel caps and feature heavy electroplated finish of copper, nickel and chromium. G-80 fits Buick, Olds, Pontiac to 1956; Chrysler family to 1952, many Ford, Chevrolet and other car and truck models. *Stant Mfg Co, Inc, Connersville, Ind.*

COMBINATION REAR-PLATFORM EXTENSION & BUMPER-STEP that is available to the truck body builder. It comes in standard over-all lengths of 82⅝, 90, 92 and 95 in. The extension is standard 12 in. wide. Special lengths and widths can be obtained upon request. Constructed of channel and flooring plate it comes ready for installation. *Nash Bros Co, 2125 Dewey Ave, Evanston, Ill.*

DECARBONIZING AND DEGREASING SOLUTION. Pow-A-Kit is a concentrated powder, which by adding water, loosens carbon, grease, tar, gum and sludge from carburetors, pumps and other small parts. Available in 5-lb containers. *Stewart-Hall Chemical Corp, PO Box 66, Mt. Vernon, N.Y.*

REBUILT STARTERS, GENERATORS, solenoids and armatures for late-model cars (including 1958 models). These parts are original equipment units and said to handle full load requirements of 12-volt systems. Each unit is disassembled, cleaned, reassembled and tested before leaving factory. All Arrow factory rebuilt replacement units are fully guaranteed. *Arrow Armatures Co, 12 Fordham Rd, Boston 34, Mass.*

TRANSMISSION SEALER known as "X" Trans-matic. Manufacturer claims that sealer maintains a tight seal without damaging or in any way altering the construction and shape of the gasket. It is also said to revitalize shrunken, corroded, or dry transmission seals for noiseless operation. Can be used with all transmission fuels. *"X" Laboratories Inc, 25 W 45th St, New York 36, N.Y.*

NEW ACRYLIC FINISH called Arcolite is available in factory packaged colors that match the Acrylic colors being used on many of the new '59 models. This latest addition to the automotive paint line can be used for panel, spot repair work, and two-toning of automobiles. *The Arco Co, 7301 Bessemer Ave, Cleveland 27, Ohio.*

BLITZ SAFETY TYPE CAN for carrying flammable liquids such as gasoline, naphtha and benzine. Heavy-duty springs hold cap firmly in place when can is not in use. Flame arrestor screen is available as an extra safeguard. *Edward Can Co. 6260 North NW Highway, Chicago 31, Ill.*

COMPLETE LINE OF AUTOMATIC TRANSMISSION PARTS for the replacement market. New packaging features polyethylene-covered kits for gaskets and seals, assembled for specific jobs. Also available is an automatic transmission parts manual that covers all types since 1940. *Toledo Steel Products, Cleveland, Ohio.*

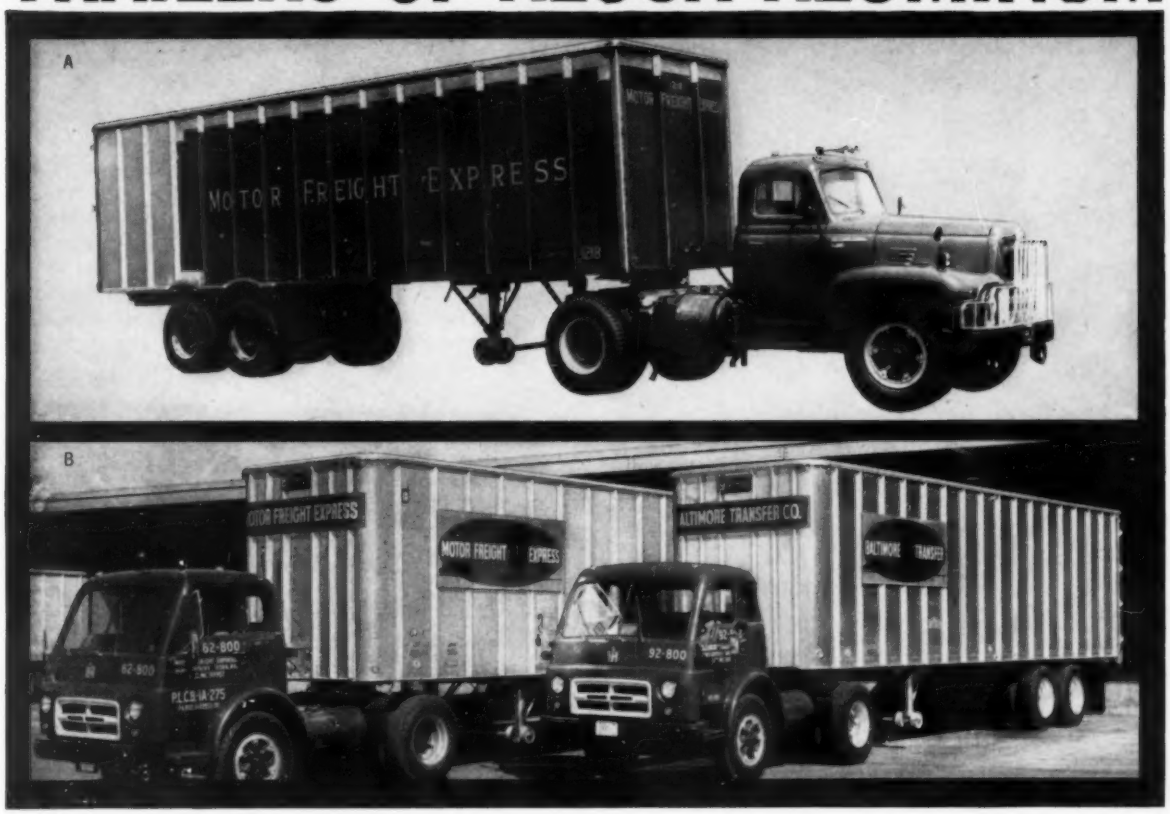
FLEXIBLE NEOPRENE INDUSTRIAL HOSE features a continuous, spiral-ribbed construction. This multi-purpose hose is designed for long service life. Comes in 2, 2½ and 3 in. diameters in lengths to 11 ft. Connector sections are available for assembly of longer lengths. *Burton Mfg Co, Burton, Ohio.*

DUAL AIR HORN that is rainproof and dustproof. The new 16¾ in. Lifesaver Model is designed with horizontal diaphragms mounted above horn outlets where, it is claimed, rain and dust cannot reach them. Price: $27.50 including valve, nylon-covered lanyard, tubing and all fittings. *Hadley Mfg Co, 221 Albion, Toledo 6, Ohio.*

SOLID STEEL GRILLE GUARDS. New line of one-piece units secured on top and underneath frame by over-bumper mounting brackets—a design said to result in sturdy one-piece units for truck radiator protection. Bumper tops have safety edging. *Bustin Steel Products, Inc, Dover, N.J.*

Baltimore Transfer Company Completes Twenty-Five Years of Profitable Payloading With

TRAILERS OF ALCOA ALUMINUM



A—Light in weight, versatile and durable is the way to describe this unit built by Baltimore Transfer in 1946. After 200,000 miles it was still in perfect condition, so when additional cubage was needed, it was rebuilt in 1952 by raising the roof and adding several feet to the rear.

B—Two new trailer units built by **Gindy Manufacturing Company** indicate Baltimore Transfer's long-term satisfaction with all-aluminum construction. Lightweight, corrosion-resistant, maintenance-free Alcoa® Aluminum assures long life in rough over-the-road general freight service.

Today ***Gindy Manufacturing Company*** *supplies the same basic external post design that conclusively proved the case for all-aluminum construction in 1932.* Baltimore Transfer Company, Baltimore, Md., working closely with Alcoa's Development Division, actually pioneered the use of all-aluminum construction for highway trailers. The first trailer was designed for a payload of 24,000 pounds; tested with a 50,000-lb load over the roughest roads that could be found, it was learned that no detectable set had been induced. Six more trailers were immediately started.

Today, more than 500 trailer units later, Mr. Ward L. Bennett, Superintendent of Automotive Equipment for Baltimore Transfer, says: "For the past twenty-five years, the Baltimore Transfer Company has used external post aluminum trailers. Such construction is extremely durable and also economical to maintain and repair. And all-aluminum construction has helped us to maximize payload on every trip."

Your Guide to the Best in Aluminum Value

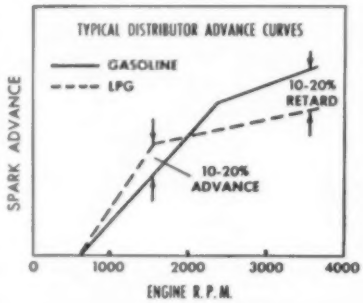
ALCOA ALUMINUM

Here's why Champion gives in spark plug and ignition

Champion Field Engineer Howard Tranum (center) and L. R. Craig (right), Champion Territory Representative, check for proper distributor advance on an LPG-powered truck for R. H. Wallace, mechanic at General Gas Corporation of Baton Rouge, La. (See Service Tip.)

EXCLUSIVE TECHNICAL HELP

CHAMPION SERVICE TIPS for better LPG performance



IGNITION TIMING: Basic ignition timing usually should be advanced 3° to 6° from the original settings specified for gasoline. However, the automatic distributor advance should be modified as shown in the accompanying illustration to provide 10 to 20% less spark advance at maximum speed.

SPARK PLUG HEAT RANGE: Colder spark plugs can be substituted without excessive fouling because LPG is clean burning. For example, in the 18-mm. LPG conversion, Champion D-10 is usually substituted for the 6 Com. or D-14 heat range. In 14-mm. installations, J-6 is the usual LPG plug where J-7 or J-8 heat ranges were previously used with gasoline.

SPARK PLUG GAPS: Gap settings should be decreased in about the same proportion as compression ratio is increased in the conversion. A good "rule of thumb" is to decrease gaps about .001" for each 10 psi increase in compression.

you more performance

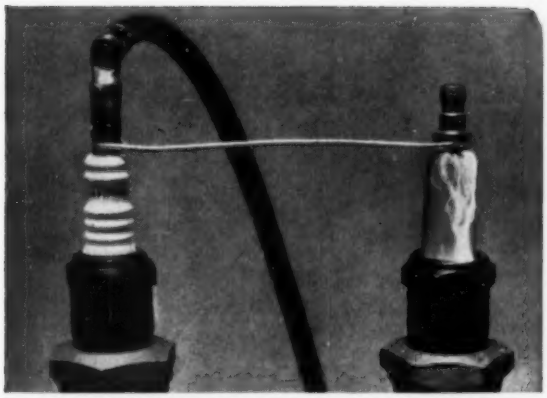
Champion "know how"—put to work in *your* fleet—gives you the *best possible* ignition performance. And Champion has experienced representatives ready to help *you*. They're backed by the world's largest research and engineering organization devoted exclusively to spark plugs. And Champion's wealth of "know how" is kept fresh and growing by Field Engineers, experts who tackle new or unusual on-the-job situations. This exclusive service is available to *all* Champion users. If you are interested in better performance, call your Champion representative or supplier.

18 of 21 truck makers choose

CHAMPION

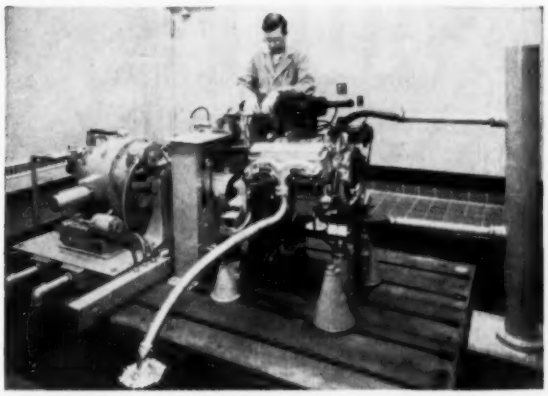
SPARK PLUGS

CHAMPION SPARK PLUG COMPANY • TOLEDO 1, OHIO



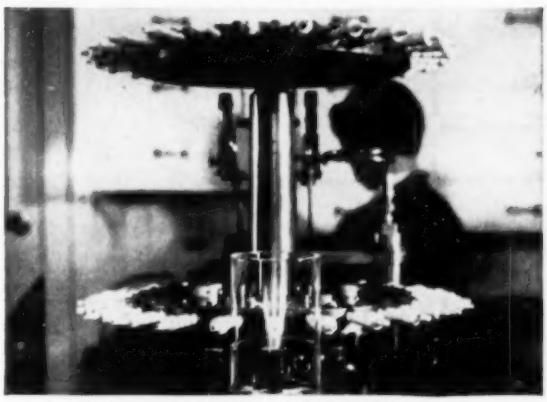
EXCLUSIVE PRODUCT FEATURES

Here's how Champion's exclusive 5-rib design gives you better performance. Both plugs have the same voltage applied, but the 5-rib Champion insulator offers far greater protection against flashover – gives you easier starting and longer battery life in the cold, damp days ahead.



RESEARCH AND PRODUCT DEVELOPMENT

At Champion's Research and Engineering Center, experts use test engines to experiment with various electrode alloys, seeking out those which give you *even longer* spark plug life. Continuing research like this is another reason why Champion gives you *more* in ignition performance.



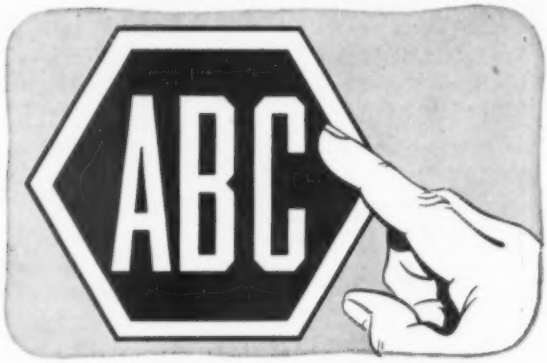
QUALITY CONTROL

Here sample insulators made from *every* batch of Champion ceramic material are blasted with cold air before and after entering a 2400-degree flame. Champion's exacting quality control assures you of maximum resistance to breakage, gives you top performance with lowest possible replacement costs.

Who's Minding The Store?

. . . in the magazine publishing business, it's

The Audit Bureau of Circulations (ABC) is a cooperative organization that sets standards of good business conduct for its publisher members. Once each year ABC auditors carefully scrutinize the entire circulation structure and operation of every member magazine. In a very real sense, therefore, they are "minding the store" — making sure that no false or misleading claims are made regarding the size or composition of a magazine's audience.



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Accurate Figures — about you are the heart of ABC's job. ABC does a candid, unbiased, certified audit of all subscription figures of member magazines — and of the subscribers' jobs, functions, and locations. These audits help editors to tailor the contents of their magazine to your specific job interests.

You're the boss when you pay money for any magazine. Your vote of confidence and your renewals of subscriptions are dominant in the thinking of editors and publishers. Advertisers are vitally interested, too, and their support helps earn the dollars needed to do a stronger, more useful editorial job for you.

You, the subscriber, win when you buy business magazines that hold membership in the Audit Bureau of Circulations. The ABC symbol signifies that the publication to which you subscribe makes every effort to provide you with the type of informatin you need to do a better, more effective job. It also indicates that the publisher maintains the highest standards of business ethics.

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beats your best cost record by a country mile

new Cooper nylon truck tire

runs and runs and runs

79% more tread depth... up to double the mileage...
more lateral traction... more bonus recaps

1 Tread is over ¾" deep in larger sizes and made with Cooper's new CSA#6 super rubber to deliver the longest mileage ever . . . even on the toughest highway runs. Special rib spacing dissipates heat, keeps tread and body cool.

2 Cooper all-nylon "Hi-T" cord body is electronically processed and each cord is actually stronger than steel cable, pound for pound.

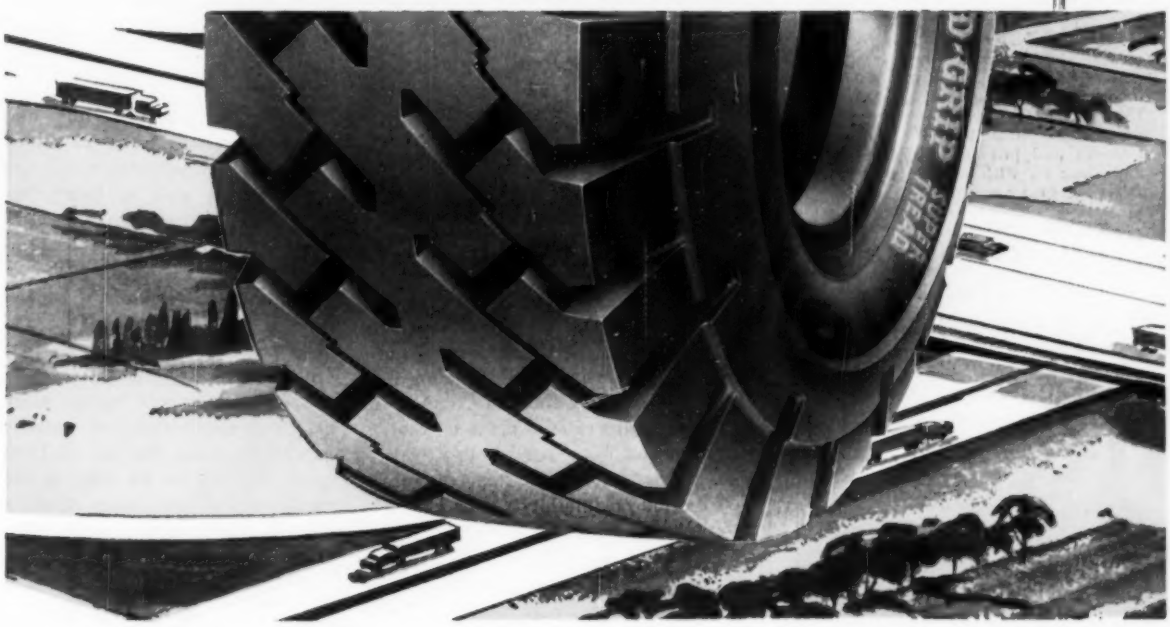
3 Cooper's exclusive running rib gives more lateral traction to protect against side slips, jackknifing. Sure-footed straightaway traction keeps heavy loads moving on steep grades. There's more traction power to stop . . . go . . . hold the road.

4 Cooper Shock-Guard construction with new nylon "Hi-T" cord gives a practically damage-proof tire body — up to 4 and 5 bonus recaps.

Cooper Road-Grip SUPER TREAD
for highway service

See your Cooper truck tire dealer, or write Dept. 118, for special introductory prices.

COOPER TIRE & RUBBER COMPANY, FINDLAY, OHIO



CLEANS ECONOMICALLY

VEGO NO. 31
Emulsion Cleaner
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FLOATS GREASE AWAY

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- Spray On — Let Soak — Rinse Off
- Cleans Floors, Motors or Parts, Truck Bodies, Diesel Motor Frames
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Now VEGO brings you a heavy degreaser that will clean truck bodies, motors and parts, and floors in nothing flat! It's new VEGO NO. 31 EMULSION CLEANER — a heavy degreaser concentrate you mix to desired strength and just spray on, let soak, and rinse off with water. It actually floats the grease away!

Order Direct or —

Write Dept. C for descriptive literature. Also ask about VEGO Aluminum Cleaner for truck bodies.

CHEMICALS & MATERIALS CORPORATION
Terre Haute, Indiana

VEGO NO. 31
EMULSION CLEANER

Tomorrow's Looks . . .

Continued from page 108

"Present car forms are not the most efficient with respect to wind resistance.

"Improved versions of current types of piston engines may be expected to continue as the principal source of power for passenger cars."

Bidwell doesn't see much large scale use by motor vehicles of such things as nuclear power, solar power or fuel cells before 1980, even if present technical problems were overcome.

Looking at the car of the future, Bidwell says one trend probably will be toward the new unified control system similar to that used by Firebird III. The short control stick actuates the throttle by pushing forward, brakes by pulling back and steering by sidewise motions, eliminating the conventional steering wheel and brake and accelerator pedals. This stick assembly is located in the left door panel ahead of an adjustable arm rest. He goes on to point out:

"In this mechanism there are no mechanical connections between the stick and the apparatus it controls. Each is operated by hydraulic power controlled by electrical signals from the Unicontrol stick, permitting a great deal of freedom in providing the most suitable response characteristics."

The car of tomorrow might possibly be automatically guided along highways of the future. Bidwell says:

"Automatic guidance or some audible path error signal might reduce traffic fatalities appreciably. One means of achieving automatic guidance is the Servo power steering equipment. Similar to that used with the Unicontrol system, it positions the front wheels in response to a command from a small glove box computer.

"Although it is obvious that equipment is required both in car and road, such a system can be expected on intercity routes in the future. In fact, coupled with an automatic spacing control, it appears possible to double the car carrying capacity of heavily traveled roads. And unless drastic changes occur in city street design, automatic systems will be limited to the highway."

Bidwell concludes: "It presently appears that revolutionary changes, in such principal components of passenger cars as wheels and engines, will not occur before 1980. Application of physical and behavior sciences will create vehicles with better performance, more comfort, and with instruments and controls better suited to driver requirements."

Jack Charipar, chief engineer and director of product, Plymouth Division of Chrysler, told SAE: "The basic design of the modern car must no longer develop strictly in response to fundamental mechanical need, but rather is now governed as much by commercial demand and the requirement of change itself as an inducement to sales volume. The whole idea, of making cars in volume which will run reliably at low cost, has reached a much higher plane where the job of creating a successful car often is as much psychological as technical. Let's look for changes in the next 22 years which will benefit the consumer and inspire him to buy automotive transportation which is more beautiful, comfortable and safer than ever before.

"By 1980 automotive styling and buyer taste will have outgrown present preoccupation with size and mass as ends in themselves and will be concentrated on better use of space and materials. Improved materials and advanced structural techniques will make even lighter body-chassis assemblies possible, with enlarged passenger and cargo space.

"We can expect many more practical applications of aerodynamics to make the car of 1980 more effective in its role on the roads of that era—more effective use of fuel, quieter, more agile at any speed, and safer. Sustained operation at higher speeds will

Continued on page 126

"Well, I sent him away happy!"

"I gave him the best heavy-duty, long-mileage engine bearings on the market—Federal-Mogul sintered copper-alloy bearings. They've proved they have what it takes to stand up under the load, speed and temperature conditions of heavy-duty operation."

Fm sintered bearings have a low-carbon steel back for strength and bonding quality, pure copper-lead lining of sintered metal powder, a brass barrier for lining stability, lead-tin overplate for break-in protection and pure flash tin plating for overall corrosion resistance.

Call your Federal-Mogul jobber for prompt service on ALL bearing requirements!

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Division of Federal-Mogul-Bower Bearings, Inc.

BOWER FEDERAL Mogul RCA NATIONAL SEALS

ANOTHER

SMASH HIT!

FROM GMC OPERATION "HIGH GEAR"

Only five months after the new D860 was introduced, 932 of them were setting new economy and performance records in 186 major fleets!

HERE'S WHY NEW D860 GMC's ARE MAKING TRUCK HISTORY! • Lightest weight 90" BBC in its class • Hauls up to 1,270 pounds more payload • Most economical diesel on the road • Only diesel with fuel-saving economy range governor and automatic fan that saves on fuel—increases horsepower • Flexible, hauls up to 40-foot trailers in 50-foot states.

This is more proof that the industry's most dynamic engineering, design and quality-control program, GMC Operation "High Gear", is paying off for you!

THESE PROFIT-CONSCIOUS FLEETS HAVE ALREADY PURCHASED NEW GMC 860 HIGHWAY HAULERS

Arkansas-Best Freight System, Inc. • Akers Motor Lines, Inc. • Cooper-Jarrett, Inc. • Dance Freight Lines • Ellis Truck Co. • Esso Standard Oil • Federal Express • Great Southern Trucking Co. • Gordon Transport • Jack Cole Co. • Kroger Co. • Lloyd Fry Roofing Co. • McLean Trucking Co. • Point Express • Red Star Transit • Roadway Express • Shippers Dispatch • Southwest Freight Lines, Inc. • Terminal Transport Co. • and over 100 more!

Get complete details. Find out firsthand what these revolutionary D860's can do for you. Call your GMC Dealer or mail this card for prompt action.

Illustrated at left—
Model, D860—GCW, 60,000-65,000 lbs.—Engine, 6-71SE diesel, 189 or 210 H. P.—Weight, road-ready (140" WB), 10,445 lbs. total

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TRUCKS

GMC Fleet Sales Dept.
GMC Truck & Coach Division
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Please give this request your immediate attention. I am interested in:

☐ The catalog "Take the EXTRA PROFIT Route" that fully explains all the power, weight and dimension advantages of the new D860.

☐ The "D860 Job Test", the GMC demonstration plan where my drivers will put the new D860 through its paces on my routes.

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POSITION_____
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From ½-ton to 45-ton . . . General Motors leads the way!

GUNITE

STEEL WHEELS

Gunite Cast Steel Wheels have hub and spokes formed in a single, rugged, light-weight channel-type casting that insures true rim alignment under roughest usage with a substantial reduction in dead weight. The open spoke design keeps brakes and tires cooler to last miles longer! Specified as original equipment by leading truck and trailer manufacturers.

Don't wait . . . call the Gunite distributor in your area TODAY!

THE FULL LINE MANUFACTURER OF
HEAVY DUTY BRAKE DRUMS AND WHEELS

GUNITE

GUNITE FOUNDRIES CORPORATION
Rockford • Illinois
Established 1854

Tomorrow's Looks...

Continued from page 122

make functional aerodynamic styling important.

"We can expect to see clean contours, with flush windows and ornamentation, high performance, ducted high pressure cooling systems with aerodynamically located air inlet and outlet grilles for the engine, passenger compartment and brake cooling.

"In addition, body surface development featuring the extension of the body skin all the way around the car, under it, and tail fins for directional stability at all highway speeds, can be expected. Aerodynamic braking may also employ flaps set into such fins or into the body surface where they might also be used to control airflow over the body at certain speeds for reduced drag and improved economy and performance.

"**Increased use of glass** and glass-like materials in upper body areas can be expected, consistent with developments in solar heat absorption, and the structure and sealing problems of transparent material.

"One day, physics and chemistry will give us a material which we could call today's transparent steel' for automobile roofs. Researchers are already at work on this material.

"The doors in our 1980 car will be larger, lighter and easier to enter, as windows might be fixed in curved door panels opening into air conditioned interiors.

"**Another possibility:** Instead of sprayed-on surface paints, the car of 1980 could have tinted oxide film coating, a color-filled metal surface which would never require polishing or repainting.

"Cars will probably stop growing larger in order to provide more of what buyers want. The zenith of sheer size probably having been reached, automotive designers will proceed to use the space available to provide greater comfort and improved style, perhaps in even smaller packages in some cases. We can expect the car of 1980 to have an overall height of not less than 51-53 in.

"The use of light alloys in compact power plants weighing, for the largest cars, under 800 lbs. could even permit comfortable, dynamically stable rear engine mounting on wheelbases of 125-130 in.

"Overall lengths of such automobiles would probably approach 220 in. in the larger car classes. However, the station wagon requirement and the production of single chassis design for all body styles would militate against the rear engine except in the larger car classes where station wagons are not offered, and where the available wheelbase will make reasonable rear-engined weight distribution possible. Whether this final step toward the elimination of the offending drive train is taken or not, we can expect the car of 1980 to have a very small tunnel, if any at all, in its low, roomy floor.

"By 1980 we will probably be designing chassis for highway vehicles with only home driveway and the mechanical service clearance requirement to limit us—at perhaps 4 or 5 in. Of course utility and suburban vehicles will need extra ground clearance for the fishing and hunting trails we'll still want to drive. And we can get this clearance by automatically-adjusted suspension, controlled by the driver to suit his road requirement.

"Tire design by 1980 will have completely removed any need for concern. These tires will be absolutely puncture-proof and virtually indestructible.

"The 1980 car will still require old-fashioned, unexotic liquid fuel having rationally-organized atoms. This fuel could be carried in fuel tanks or fuel cells occupying otherwise unuseable spaces in the body such as the quarter panels or front fenders. They could be literally 'poured' into these spaces, constructed of flexible, reinforced elastomeric shells moulded to the exact shape of the available space.

"Interchangeability between body types, already developing rapidly, will probably be virtually complete by 1980 and we may then see only

Continued on page 131

GUNITE

BRAKE DRUMS

Save . . . mile after mile . . . with rugged, dependable Gunite Brake Drums. Special alloy metal . . . plus "performance-proved" rib design . . . outwears, outperforms ordinary drums. Brakes stay cooler, more efficient, safer . . . brake and drum maintenance costs are substantially less! Over 800 sizes and types of Gunite heavy duty brake drums are available!

Don't wait . . . call the Gunite distributor in your area TODAY!

THE FULL LINE MANUFACTURER OF
HEAVY DUTY BRAKE DRUMS AND WHEELS

GUNITE

GUNITE FOUNDRIES CORPORATION
Rockford • Illinois
Established 1854

BEWARE OF "BARGAIN" BRAKE BLOCKS— YOU CAN'T BARGAIN WITH SAFETY

Replacement brake block economies made available by a reputable manufacturer who has developed better fabricating methods or materials are one thing. Such economies are fine —because *everybody benefits*. The company sells more blocks. The trucker gets a better product for the same money—or the same product for less money.

NOT THE SAME. But inferior grade brake blocks now on the replacement market are another thing entirely. Turned out by hit-and-miss methods from below-par materials, these blocks *benefit nobody*. The trucker finds them a poor "bargain", for they quickly lose their stopping power and need replacement. Worse—because of their inferior performance—they can lead to disastrous accidents.

YET LOOK ALIKE. Unfortunately, the inferior blocks *look* so much like the top quality stuff that only a brake lining engineering expert can tell them apart. Consequently, some truckers are being fooled into buying the inferior blocks under the impression that they're getting a first-class product. What protection do *you* have against falling into this same trap yourself?

BEST SAFEGUARD. Surest way to steer clear of getting stuck with a "junk" block is to buy only "name brand" brake blocks—made by Bendix or some other *reputable* manufacturer.

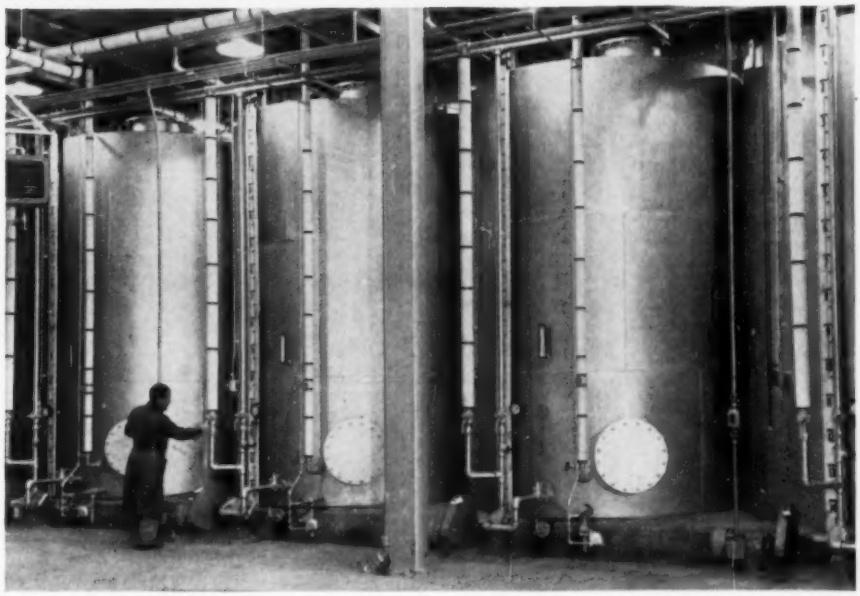
In determining the relative merits of the different replacement block brands, be guided by this fact about original equipment blocks. Automobile and truck manufacturers go to great lengths to protect their customers by installing only brake lining made by responsible people. And, because Bendix has so satisfied vehicle manufacturers, our linings are on more new vehicles than any other brand.

Established 1854

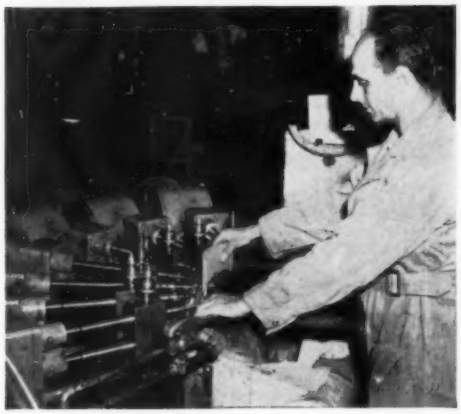
It takes more than a bucket and a kitchen stove to manufacture quality brake blocks

AT BENDIX-ECLIPSE* brake blocks are formed in single and double wave molds under tons of pressure and rigidly controlled temperatures. Result: a uniform, dense, strong, and tough friction material.

NOTHING IS LEFT TO CHANCE at Bendix-Eclipse when it comes to thorough testing of brake blocks. Special test trucks like this one measure braking characteristics of our blocks under every conceivable kind of operating condition.



LARGE QUANTITIES of special Bendix-manufactured resins are kept in these special storage tanks ready for use in Bendix-Eclipse brake linings and for sale to other industries.



ONE EXAMPLE of the precision equipment used in manufacturing Bendix-Eclipse brake blocks is a battery of special machine tools which drill and counterbore block holes to the exact specifications required for perfect fits on various types of brake shoes.

*TRADEMARK

BENDIX-ECLIPSE

Marshall-Eclipse Division

Troy, New York

Bendix AVIATION CORPORATION

HEAVY DUTY

VISION-AID HEADLAMP WITH SPOTLIGHT LOW BEAM

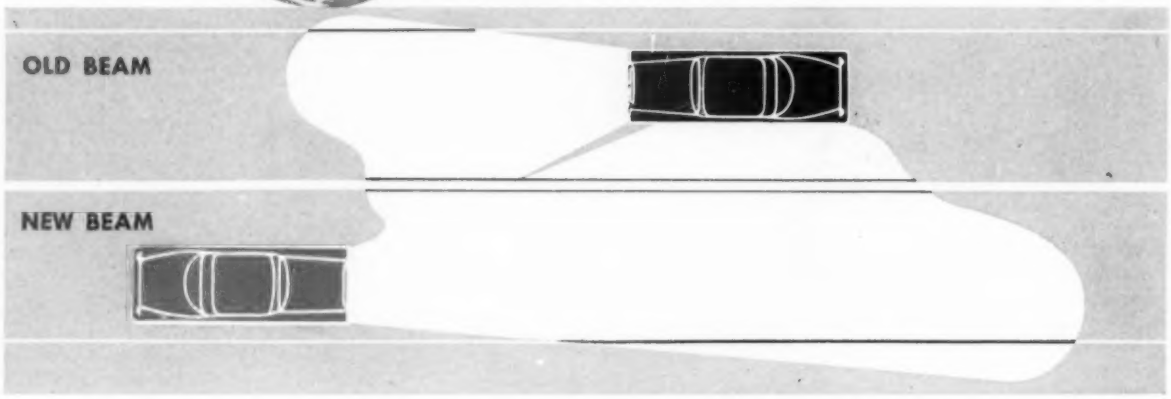
6013

12-VOLT

NEW FOR RUGGED FLEET SERVICE

Redesigned lens • Improved high beam
Glare-reducing filament shield
Shock resistant, spot-welded filament support
E-Z aim platforms • Ruggedized filament mount

BETTER VISIBILITY....SAFER PASSING FOR ALL TWO-HEADLAMP FLEET VEHICLES



Here's how the new spotlight low beam helps you see better and pass more safely

OLD Range of low beam in old-type 7-inch headlamps is no longer adequate for modern highway conditions. As vehicles approach, the opposing headlights create a glare that tends to cancel out the visibility of both drivers—and cause a critical "blind-spot" in passing.

NEW 6000 series spotlight low beam concentrates more light farther along the right side of road, away from oncoming lights . . . provides better visibility thru critical passing zone. Even against 4-headlamp vehicles and undimmed lamps, more light gets through. You pass with less eye strain, less hazard.

FOR PASSENGER CAR FLEETS:
Specify 6006 (6-volt) or 6012 (12-volt) Vision-Aid Headlamps with Spotlight Low Beam.

Equip your fleet with greater night driving safety with

TUNG-SOL®

NEW TUNG-SOL VISION-AID HEADLAMPS with SPOTLIGHT LOW BEAM
Lamp Division, **TUNG-SOL ELECTRIC INC.,** *Newark 4, N. J.*

Tomorrow's Looks . . .

Continued from page 127

two basic body variants—sedan and suburban.

"Today's cars, by yesterday's standards, would be unbelievable. It is understandable, therefore, that with all our vision we cannot really see the automobiles of a quarter century into the future if we try to imagine them in terms of today's materials and methods. History has shown us that we ourselves tend to limit progress far more through limited thinking than by any lack of intellect.

"Predicting the future is almost therapeutic—it dares us to dream, makes us dream. And dreamers make things happen. Because you never get from where you are to a better somewhere else without thinking about new things. We could call this imagineering."

James C. Zeder, Chrysler Corp. vice president, last month (Dec. 4) at the Utah Automobile Dealers Assn. meeting, predicted "spectacular engineering innovations" in the years ahead. In nearly every area of automotive engineering there are "numerous improvements to be made," among them:

Further improvement in engine economy; reduction in car weights; increased braking efficiency; better cooling of car interiors and improved suspension systems.

Contrary to critics of automotive styling, Professor Clare E. Griffin, University of Michigan business economist, says car fins and other changes in styling and basic product improvements all contribute to economic democracy in America. He adds that in providing a powerful stimulus to new sales of durable goods, this planned obsolescence" makes more used automobiles and appliances available at reasonable prices for middle and lower income groups. While purchases of new cars may sometimes seem extravagant for certain individuals, they are not wasteful from the national or broad social view.

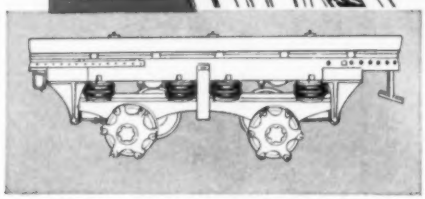
America's habit of keeping up with the nextdoor neighbor is not going to pass out of existence, he predicts, although the form this competition takes may vary. Prestige has been displayed in housing, clothing, pianos and other items throughout history.

Aluminum — While auto company stylists and engineers continue to dream up future cars, the aluminum industry is getting into the act. Reynolds has been in the field for some time trying to convert car makers to more use of aluminum in body shells—and now Kaiser is making overtures.

The designs concocted by Kaiser stylists and engineers do not de-

Continued on next page

BARTLETT
"Soft Air Ride"
WITHOUT THE GADGETS
LESS WEIGHT
COSTS SLIGHTLY MORE



① Lashing-Binder Chain Rings in Full Slide Rails
② 16x7" Main Frame Beams
③ Sliding Tandem Assembly — 3" Increments — 15' Long
④ Air Ride with Individual Pontoons — Each Axle Separate Controls
⑤ Air Ride Control Box — Rides 15# Empty — 30# 30,000 lbs. — 45# 45,000 lbs. Payload
⑥ Coil Type Bottom — Coils Up to 54" Nest Solidly
⑦ Air Ride Air Tanks — Automatically Fills Chambers for Increased Loading

No - Shock Absorbers
No - Levelling Valves
No - Maintenance
No - Interference with Brake Mechanism
No - Increased Compressor Capacity

Does Not Use Up Air — Except On Load Increase
Reduces Un-Sprung Weight — Better Tire Mileage

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THE ORIGINAL PIGGY BACK LIFTING 5th WHEEL

WITH Clayton YOU CAN BE SURE

of Greater Operating Economies... and Driver Satisfaction *without leaving the shop!*

The only purpose served by a truck or a fleet of trucks is to move weight from one point to another. Moving this weight profitably is essential... and this depends on operating economies, maintenance of schedules, driver satisfaction and safety. These factors demand *maximum truck performance and peak horsepower* at all times.

Proper performance can no longer be assured by time consuming and inconclusive road tests that expose both mechanic and equipment to traffic hazards and laws. Local road conditions seldom duplicate those which truck and driver encounter on regular runs. But a Clayton Chassis Dynamometer *duplicates these and all other road conditions* inside your own shop, safely, economically and quickly. Write or call your Clayton representative today.

ASK ABOUT Clayton ENGINE DYNAMOMETERS

There is a Clayton Engine Dynamometer for every engine service shop regardless of size. Engine run-in and test under actual road load conditions...

Prevent costly do-over-work
Greatly reduces road breakdowns and almost eliminates driver and customer complaints

KEEP 'EM CLEAN, TOO!

COMPLETE LINE OF CLEANERS FOR EVERY SIZE SHOP

From the 60 gal.-per-hour steam cleaner, for handling small jobs, to the big, new Clayton-Sellers Hydraulic jet unit that really knocks off road grime and mud collected by the big rigs, there's a Clayton Steam Cleaner that does the job efficiently and economically.

Sirs: We're interested in seeing more data on: 304

- ☐ C-250 Series of Dynamometers for trucks
- ☐ Engine test stands
- ☐ Cleaners for heavy duty work

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Send to: Clayton MANUFACTURING COMPANY
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Tomorrow's Looks...

Continued from page 131

part too drastically from what Big Three designers have predicted for the future. The main

difference is the use of aluminum rather than sheet metal. But Kaiser has come up with a few ideas which appear relatively new. They include such things as:

An engine hood with a roll-away door of aluminum extrusions that can be opened for routine service station servicing.

A rear trunk lid which provides access to the trunk either directly from the rear by raising the entire deck or opening "curb-side" on either side through hinged panels in the deck.

A station wagon with the engine directly beneath the driver's seat.

A water-cooled V-8 engine with aluminum block and radiator, aluminum wheel, hub and brake drum and a frame of cast aluminum sections and extrusions.

Body panels of brushed or etched anodized aluminum and two-piece die cast aluminum doors with sculptured surfaces.

Cooling system problems — Expanded use of light metals, especially aluminum, may create some cooling system problems, according to Leonard C. Rowe of GM's Research Laboratories' Chemistry Department. See p. 32, this issue.

V TOWARD GREATER VICTORIES

JOIN THE MARCH OF DIMES

POWER STEERING
That Can Take It

For TRUCKS
That Can Take It

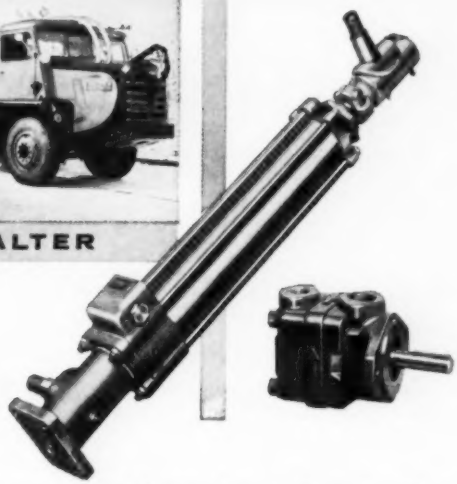
DART

EUCLID

MACK

OSHKOSH

WALTER



VICKERS® HYDRAULIC POWER STEERING

The hydraulic power steering systems used on trucks like these have to be able to take it because the vehicles are required to take it. They are built for the rough, tough jobs . . . and the hydraulics must match. Heaviest axle loads . . . off road operation . . . the most difficult steering conditions possible are easily mastered by the power, inherent high quality, dependability and tough durability of Vickers Hydraulic Power Steering Systems.

Steering is made "fingertouch" easy and safe. Road reaction can't reach the driver through the steering wheel. Obstructions can't cause swerving. Driving is not a wrestling match, so the driver gets more work done with less fatigue.

The superior design and rugged construction of the Vickers Hydraulic Power Steering Booster assure dependability, long life and low maintenance. Typical are the oversize piston rod and the extra large control valve.

The Vickers Vane Type Pump has hydraulic balance that eliminates pressure-induced bearing loads and assures long life with minimum maintenance . . . the key to less downtime. Correct running clearances (both radial and axial) are automatically maintained, providing high efficiency throughout pump life.

Get all the facts about the advantages of Vickers Hydraulic Power Steering. Ask for Bulletin M5101A.

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ENGINEERS AND BUILDERS OF OIL HYDRAULIC EQUIPMENT SINCE 1921

Photo courtesy of Clark Equipment Co.

Keep off-the-road rigs on-the-job with

OAKITE MAINTENANCE CLEANING

Steady, on-the-job production from your off-the-road rigs shows up clearly in the profit column. That's why good maintenance cleaning practices are a must.

Oakite cleaning helps you restore your equipment to good working order fast. There are safe, efficient, time-saving Oakite materials for *every* maintenance job, including:

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—and many, many more. Your local Oakite man will be glad to tell you about it. He'll show you exactly where he can save you money and time in your maintenance cleaning operations. Or, for free illustrated booklet, write Oakite Products, Inc., 52G Rector Street, New York 6, New York.

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INSTALL

KIM Hotstart electric pre-heater

QUICK, EASY STARTS

ELIMINATES WARM-UP TIME

REDUCES ENGINE WEAR

KIM HOTSTART plugs into the electric circuit when engines are not in use. It draws cold water from the engine, heats it, then circulates it back through the engine. No need for heated terminals. Engines remain warmed-up; start quickly. You don't use as much fuel and spend less on repair bills. Four KIM models are available. Installation is simple. See your automotive supplier or write for literature.

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US® AXLE SHAFTS rate first

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Duplicates of original equipment, heat-treated and shot-peened fine alloy steel, U. S. AXLE shafts resist strain, stress and road shock . . . rate NO. 1 with servicemen and vehicle owners!

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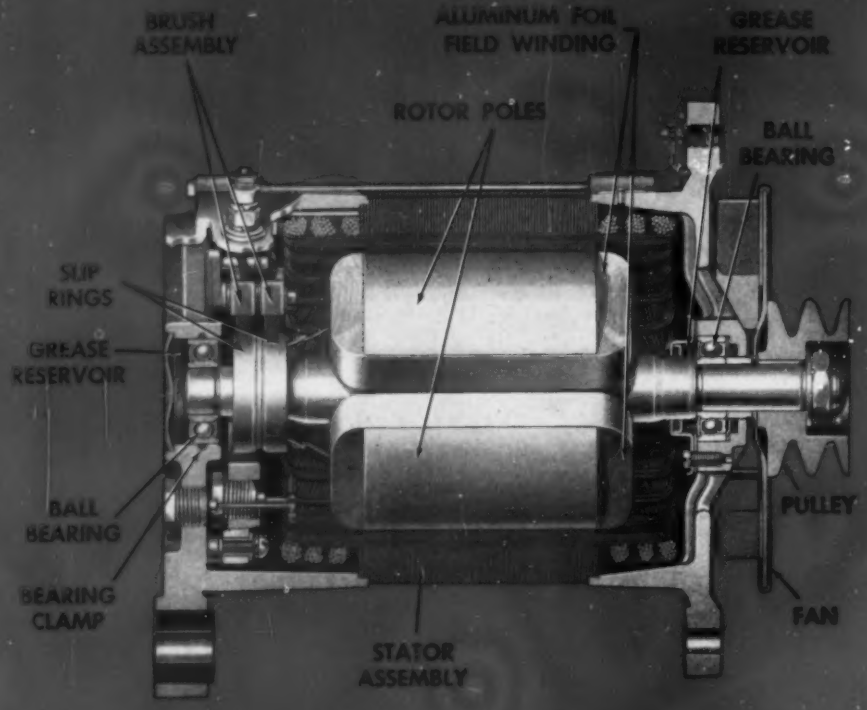
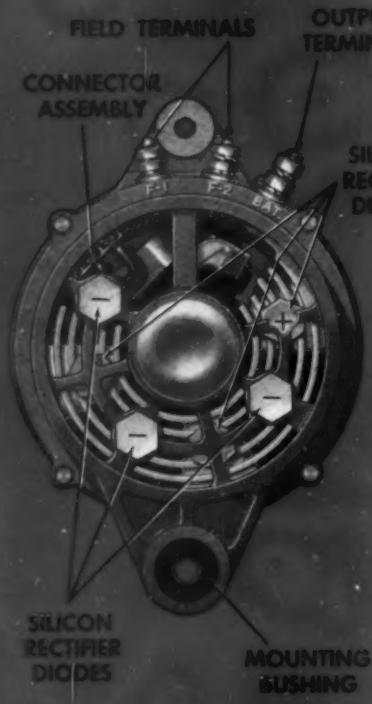
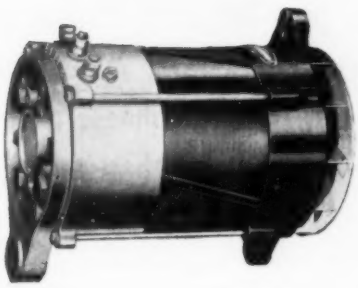


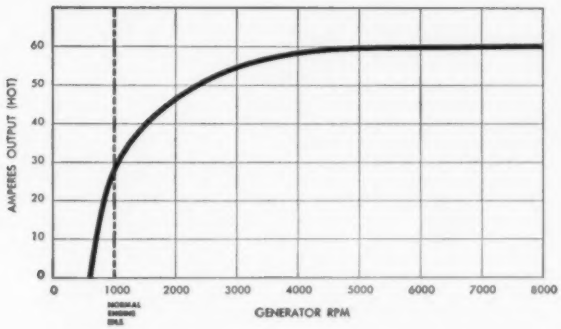


PROGRESSIVE ENGINEERING MAKES THE DIFFERENCE

UP TO TWICE THE TOTAL OUTPUT

WHEN YOU REPLACE STANDARD D.C. EQUIPMENT WITH DELCO-REMY'S NEW SELF-RECTIFYING A.C. GENERATOR





Here's a completely new generator from Delco-Remy *specifically designed* to take care of cars and trucks with extra-heavy electrical loads under all traffic conditions . . . to increase battery life by eliminating deep cycling.

Designed to mount interchangeably with most standard d.c. generators, this compact new unit is only 5¾" in diameter and weighs just 31 pounds. The a.c. design eliminates commutation problems, providing extra-long brush life . . . and the ball bearings are "lifetime" lubricated so that no attention is required between engine overhaul periods. Six specially developed silicon rectifiers built into the end frame eliminate the need for space-consuming external rectifier units, reducing installation time and cost to a minimum.

Be sure to specify this new self-rectifying a.c. generator along with its companion transistor regulator (either full or transistorized model) on your new special-duty equipment for 1959. This all-new power team is still another example of Delco-Remy progressive engineering at work for you.

GM GENERAL MOTORS

GENERAL MOTORS LEADS THE WAY—STARTING WITH Delco-Remy ELECTRICAL SYSTEMS

DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA

Du Pont reports on . . .

The latest advance in nylon cord truck tires

●"No evidence of channel cracking or ply separations during original-tread mileage on our post-inflated nylon cord tires." That's the report from Super Service Motor Freight, Nashville, Tennessee. The Super Service fleet was selected to road-test post-inflated nylons because of the grueling punishment it gives tires.

New post-inflation curing process takes advantage of nylon's superior strength and toughness . . . brings you better tires than ever before.

Tire makers have found a way to make the most of nylon's remarkable strength. A new process, called post-inflation, solves many tire problems that have long plagued truckers. New post-inflated nylon cord truck tires give truckers greater assurance of getting all the mileage the strength of nylon builds into truck tires.

In simple terms, the post-inflation process removes tire growth during the curing process. The process reduces "in-service growth" by over 50% . . . practically eliminates channel cracking and ply separations . . . drastically reduces the damage from cuts. The net results are dollar savings for truckers . . . no more premature retreading.

Most leading tire manufacturers are post-inflating their newest lines of nylon cord truck tires to bring you even better performance . . . even lower cost per mile.

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. . . THROUGH CHEMISTRY

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Enjoy the "Du Pont Show of the Month" on CBS-TV

THE SAFEST, STRONGEST TIRES ARE MADE WITH NYLON

HUGE HAUL CONTAINERS with a handling capacity up to 40 cu yd, can be picked up, hauled and dumped by truck driver without his leaving truck.

New Dump Trucks Are Using Detachable Containers

THIS HUGE HAUL DUMP TRUCK is latest addition to line of materials handling equipment manufactured by Ingersoll Kalamazoo Div. of Borg-Warner Corp. The new truck furnished with detachable containers is designed to handle all types of materials in capacities up to 40 cu yd and 30,000 lb net payloads.

The Huge Haul Hoist mounts on either a single axle or tandem axle truck. A single lever, mounted on the dash-board inside the cab, enables the truck driver to pick up, haul, dump off any number of detachable containers. Containers are available open or closed. All closed containers are equipped with two top-charging doors that open to expose an unobstructed area of 70½x-177 in.

Powered by hydraulics the unit is operated in this manner: the front end of the container is attached to a cable and drawn into position over rollers mounted on rear of frame. The tilt frame can be raised or lowered to adjust to the angle of the container as its slides into place. Container then automatically locks in place and tilt frame is lowered to rest on truck bed for hauling.

For dumping, the tilt frame is raised by twin telescoping hydraulic cylinders. A double-acting hydraulic cylinder attached to front of tilt frame steadies container, regardless of shifting center of gravity of load being dumped. Container is then lowered back into hauling position for return trip. To replace container on ground, locks controlled by hydraulic system automatically release and container slides into position.

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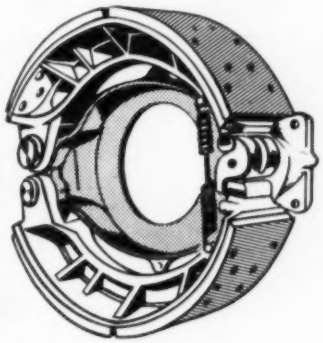
— EARNED BY EXPERIENCE



"Save the tough jobs for Scandinavia" is more than a claim. Scandinavia ZT-Molded Combination Sets have earned their reputation in the heavy-duty field. The die-pressed ZT segments have a polishing effect on brake drums which is reflected in a definite reduction of heat-checking and fading. The specially compounded molded segments, combined with ZT, result in dependable braking and long life — even in extra-heavy-duty service.

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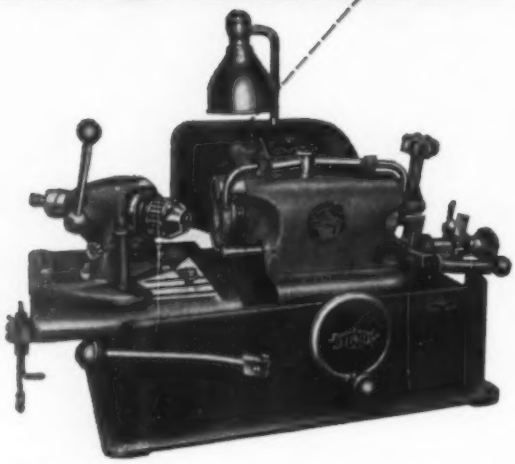
Floating Aligner moves in or out for different lengths of valves
3 Rollers grip valve firmly
Inverted center in aligner centers the valve stem

The BIG difference

is in the SIOUX QUICK-ACTING ROLLER CHUCK!



IF you had to choose one feature making the largest contribution to the speed and accuracy of the SIOUX Valve Face Grinding Machine it probably would be the quick-acting, easily cleaned, roller chuck. The inverted center floating aligner holds the valve accurately in the position in which it operates in the engine while valves are ground to within .001". It's fast, easy and accurate.

But as in all fine machinery, there is precision in a multitude of details. Belts absorb vibration . . . a cast iron base provides rigidity and weight . . . way bars are precision made, hardened and ground to close limits, and wet grinding eliminates heat and distortion.

For over 25 years men who have to lay down their hard earned money have been comparing and choosing the machine they liked best. The results are that today there are more SIOUX Valve Face Grinding Machines in use than all others combined. Buy SIOUX and you buy the finest.

SIOUX

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Economy for any hauling situation. Mack Model B trucks and tractors offer conventional-design units for almost any hauling need. Diesel or gasoline engines. Include weight-reduced models and compact models—89" from bumper to back of cab.

MACK . . . *first name for truck economy*

You can get proof today of Mack's unbeatable economy—

Proof that Macks have the lowest running costs in their class

Proof that Macks have the lowest upkeep costs in their class

Proof that Macks offer the longest dependable mileage life of any truck

How do you get verification of these facts? Simply ask your Mack branch or distributor for the names of nearby Mack users. Let *them* show you how they have found Macks to be the most economical, dependable, high-earning units they've ever run. Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd.

Economy for city-and-highway operations. Mack Model N trucks and tractors are tilt-action, low-silhouette COE's, less than 83" from bumper to back of cab. They're designed for superior performance in and out of congested areas, and for maximum loads where bridge-formula restrictions do not apply. Diesel and gasoline models.

Economy for long hauls. Mack Model H tractors are tilt-action COE diesels with road-commanding height. Less than 67" from bumper to back of cab (without sleeper), they're designed to haul maximum loads in bridge-formula areas.

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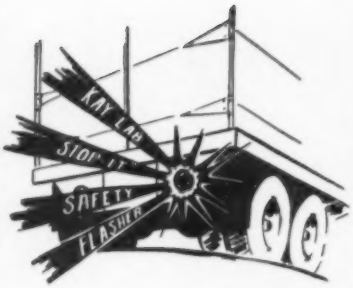
FOR DEPENDABLE QUALITY PRODUCTS

KAY LAB is repeatedly the choice with every City, County and State government requiring flashing lights on emergency vehicles because only Kay Lab has the features specified.



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Finest flasher made. Makes lights flash on-and-off. Used for flashing warning signals and directional signals. Available in 4 types. Will flash 1 to 4, 21 candlepower lights, singly or in unison without matching flasher to load. 6 or 12 volts.

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HEAVY DUTY. Meets requirements of State Laws for alternating flashing signals. Up to 15 amperes, 6 or 12 Volts. No parts to wear out; requires no lubrication, no upkeep. Operates magnetically. Good for lights or horn signals.

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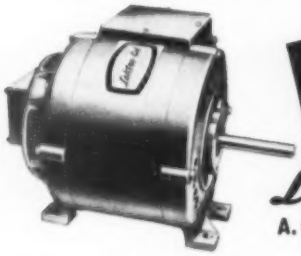
Now! Convert your fleet at low cost!



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- Your present plug-in refrigeration can now be used for Over-The-Road operation.
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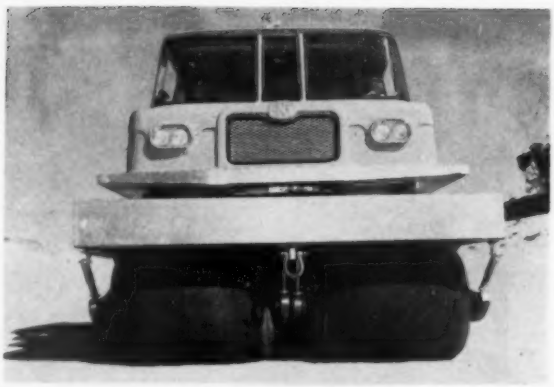

Pneumatic bags . . .

. . . instead of conventional wheels "float" this 7000-lb cargo transport with its seven-ton payload over rocks, up hillsides, through surf, sand or snow. Manufactured by Albee Rolligon Co., Monterey, Calif., the "Arc" has a cab made entirely of Dion-Iso (a high-strength contact laminating resin made with Isophthalic), produced by Chemical Process Co., Redwood City, Calif., and is reinforced with fiberglass mat. Its six huge sausage-shaped bags are friction-driven from above by rollers. Low air pressure—2 to 5 lb—permits bags to cross obstacles by flowing around them. Air pressure of each bag is controlled from cab according to terrain encountered. Top speed is 50 mph.

BE SURE YOU KNOW WHICH END IS UP

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DIESEL, INDUSTRIAL AND TRUCK ENGINES
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RAMBLER AMERICAN STATION WAGON

The new 100-inch wheelbase station wagon that costs less to buy and operate. Top economy, easiest handling and parking. Yet offers full 5-passenger room and spacious cargo area for samples and luggage.

RAMBLER AMERICAN 2-DOOR SEDAN

Public utilities and other fleet users who want an economical American-built automobile are switching to the Rambler American . . . room for 5-big passengers. Also available in 3-passenger business sedan.

RAMBLER SUPER SEDAN

The compact 108-inch wheelbase sedan that has shattered all sales records. Offers even greater economy in 1959. Costs less to buy and operate. And top resale value, too. Rambler is the soundest Fleet Buy.

RAMBLER CROSS COUNTRY STATION WAGON

Sales and service fleet users, manufacturing companies, many types of businesses find the Rambler station wagon perfect for their needs. Lots of room for tools, samples and display materials.

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FLEET SALES

AMERICAN MOTORS CORP.

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In 1959, More than Ever...

RAMBLER

Remembers the Fleet Operator

LEARN WHY THE NEW '59 RAMBLER IS THE SMART FLEET BUY

Now, more than ever before, it makes good sound business sense to switch to Rambler for your fleet requirements. For while other cars grow bigger, more expensive to operate, Rambler retains its smart compact size and offers even greater economy for 1959. Rambler is quality built, with many comfort and convenience features not available in other cars at any price. Rambler's Single Unit Construction means greater strength, safety and longer car life. And Rambler is tops in resale value among low price cars. Get all the facts that prove Rambler is your smart fleet buy for '59!

FLEET LEASING ARRANGEMENTS AVAILABLE

If your firm leases fleet units, ask your leasing company for low Rambler rates or write us for the names of leasing companies with whom we have working arrangements.

FOR BIG LOADS ...today, it's

real smart to choose DODGE POWER GIANTS

Big-truck toughness keeps Dodge on the job . . . out of the shop!

From the extra rigidity of heavy-duty front bumpers to the extra support of tandem rear axles, these '59 Power Giants are built to shrug off the punishment of your largest loads and roughest roads.

This burly T900 tandem, for example, features a 3,000-lb. G.V.W. increase (to 49,000 lbs.) . . . a 4,000-lb. boost in standard rear-axle capacity . . . 100% air brakes now standard equipment. Main-auxiliary transmission combinations provide up to 20 speeds forward, while modern Power-Dome V-8's deliver up to 234 horsepower on cost-cutting regular gasoline.

All Dodge "heavies", both tandem and conventional, bring you new cab interiors, new suspended pedals, new hydraulic clutch actuation. Designed to stay new, '59 Dodge Power Giants will allow you maximum parts interchangeability within your fleet for years to come.

Any way you figure it, Dodge is your smart truck buy this year . . . for big loads, for *all* loads. Check with your Dodge dealer soon.

New '59 Dodge Power Giants "Job-Rated" for every trucking need!

CONVENTIONAL Models 100, 200, 300, 400, 500, 600, 700, 800, 900—G.V.W.'s to 30,000 lbs.; G.C.W.'s to 65,000 lbs.

TANDEM Models T700, T800, T900— G.V.W.'s to 49,000 lbs.; G.C.W.'s to 65,000 lbs.

C.O.E. Models C500, C600, C700— G.V.W.'s to 25,000 lbs.; G.C.W.'s to 50,000 lbs.

4-WHEEL-DRIVE Models W100, W200, W300, W300M, W500— G.V.W.'s to 20,000 lbs.

FORWARD-CONTROL Models P300 and P400— G.V.W.'s to 15,000 lbs.

Good fleet shop practice pays off with GENUINE SCHRADER TIRE GAUGES AND AIR SERVICE

Flat-catching shop practices are economical, simple, and especially effective for fleets, where time is money. Take these three steps:

1. **Gauge and record** air pressures each day with Schrader Service Gauges. *Seal* air in with Schrader Caps and Cores.
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3. **Certify the accuracy** of your "every day" gauging-inflating equipment with Schrader 8106B Trutest Special Gauge.

And, remember, Schrader Chucks, Couplers, Chuck Gauges and Accessories help airlines operate faster and better. Specify genuine Schrader Tire Valves, Cores and Sealing Caps which are guaranteed airtight even at 250 pounds pressure. Profit with complete air service.

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FOR ORIGINAL EQUIPMENT AND REPLACEMENT

Records of truck operators show that reliable carburetion means greater operating efficiency at lower costs.

That's why so many cost-conscious fleet operators prefer Zenith* Carburetors and because service requirements are fewer, carburetor life is longer and fuel control far more reliable. They know that truck manufacturers using Zenith Carburetors have selected the finest product in its field.

When buying new vehicles or overhauling present equipment, your best assurance of complete carburetor efficiency lies in this fact —**Zenith has more experience in more fields with more engine types than any other carburetor manufacturer.**

*REG. U.S. PAT. OFF.

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Bendix
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withstands today's high

Wagner Lockheed has ALL requirements of GOOD Brake Lining

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   Maintaining Life Long Frictional Value
2. **LONG LINING LIFE**
   Resistance to Braking Temperatures
3. **RELATIVE FREEDOM FROM TENDENCY TO SCORE DRUMS**
4. **QUIET OPERATION**
5. **NON-OFFENSIVE ODORS**
6. **NOT UNDULY SENSITIVE TO MOISTURE**
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WB50-3

LOCKHEED BRAKE PARTS, FLUID, EXCHANGE SHOES and LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS

BRAKE LINING braking temperatures . . .

This complete line of modern brake lining . . . and blocks . . . provides you with correct choice Engineered for your heavy-duty service needs

Today's brake linings may look like the linings marketed over the past twenty years. However, due to continuous research, advanced engineering, and improved formula—Wagner's linings have gone through a process of evolution that makes them more than adequate for modern braking . . . Today, Wagner offers you a wide choice to meet your needs.

You'll like the way the new Wagner Lockheed Heavy-Duty Brake Lining withstands today's high braking temperatures. It resists heat with very little loss of friction or wearing qualities.

Engineered to meet the rigid demands of present-day over-the-road driving, Wagner Lockheed Brake Lining wears slowly and evenly. Brakes require fewer adjustments even though subjected to heavy-duty service under severe driving conditions.

This high-quality lining is uniform in density and in frictional qualities throughout entire service thicknesses. Lining will not compress, absorb moisture, or deteriorate with age. Contains no harmful materials to damage drums.

YOU HAVE A CHOICE . . . Wagner Lockheed Brake Lining and Blocks are available in sets. Slabs are made in combinations of radius, thickness and width for use on practically every heavy-duty vehicle.

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EXCHANGE SHOE SETS save you time and money. "HOW-TO-DO-IT" Installation Instruction sheet is included with each set. Shoes are lined with Wagner approved lining—contour ground, ready for installation.

For details on the complete line—mail the coupon for your free copy of Catalog AU-500.

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Please mail us a FREE copy of Catalog AU-500 on the Wagner line of Hydraulic Brake Products.

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Coming Events for Fleetmen . . .

IF YOU'RE RUNNING a meeting and want others to attend, send a notice to Coming Events Editor, FLEET OWNER, 330 W. 42nd St., New York 36, N. Y.

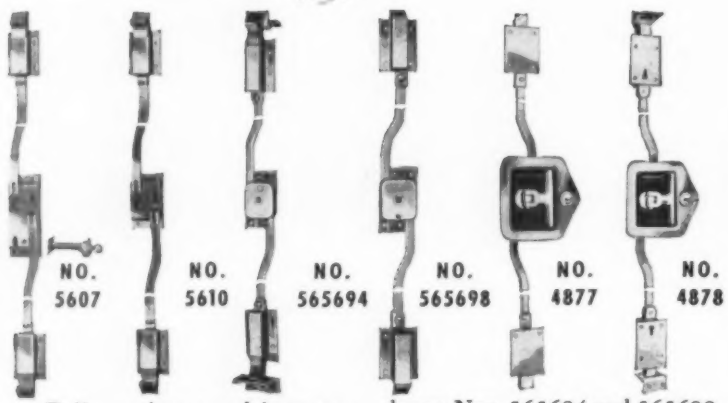
A suggestion, if you expect to attend a meeting listed below: Sometimes there are last minute changes in date or location that we cannot publish. So it's wise to check with association or convention secretaries before you make your final plans.

JANUARY 1959

12-16 SAE Annual Meeting and Engineering Display, Sheraton-Cadillac and Statler Hotels, Detroit, Mich.

17-25 Chicago Automobile Trade Assn., Annual Automobile and Truck Show, International Amphitheatre, Chicago, Ill.

19-22 American Road Builder's Assn., Annual Convention and Exhibit, Dallas Memorial Auditorium, Dallas, Texas.



Delivery time saved is money saved and the convenient ease of operation of Eberhard "Slamlocks" with their cargo protecting facility is responsible for their strong acceptance by body builders.

Nos. 5607 and 5610 for heavy doors, Nos. 565694 and 565698 for medium doors, Nos. 4877 and 4878 "Recesso" locks (with recessed folding handles) for compartment doors of tank and utility bodies.

Drop us a line. We'll be pleased to give you complete information on any or all of these items.

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2850 Tennyson Rd. • Cleveland 14, Ohio
DIVISION OF THE EASTERN MALLEABLE IRON COMPANY

Eberhard Mfg. Co., 2850 Tennyson Rd., Cleveland, O.

25-29 Truck-Trailer Manufacturers Assoc. Inc., Annual Convention, Hollywood Beach Hotel, Hollywood, Fla.

26-27 American Society of Lubrication Engineers, First Annual Gear Symposium, Morrison Hotel, Chicago, Ill.

26-29 Tenth Plant Maintenance & Engineering Show, Public Auditorium, Cleveland, Ohio.

29-30 Private Truck Council of America, 20th Annual Convention, Sherman Hotel, Chicago, Ill.

FEBRUARY 1959

2-5 National Automotive Accessories Mfgs. of America, Exposition, Coliseum, N. Y.

15-17 Motor and Equipment Wholesalers Assn., National Convention, Conrad Hilton Hotel, Chicago, Ill.

18-21 Automotive Service Industry Show, sponsored by Motor and Equipment Wholesalers Assoc., National Standard Parts Assoc., and Motor and Equipment Manufacturers Assoc., Navy Pier, Chicago, Ill.

MARCH 1959

4-8 Ninth Annual National Autorama, Connecticut State Armory, Hartford, Conn.

12-15 Pacific Automotive Show, New Brooks Hall, Civic Auditorium, San Francisco, Calif.

16-18 SAE National Passenger Car, Body and Materials Meeting, Sheraton-Cadillac Hotel, Detroit, Mich.

APRIL 1959

6-10 40th Annual Welding Show, International Amphitheatre and Hotel Sherman, Chicago, Ill.

. . . Training Courses

Courses for management, supervisors and maintenance men—here's where you'll find the time and place.

JANUARY 1959

12-29 Eleventh Institute of Industrial Transportation and Traffic Management Program, Traffic Institute of the American University, Massachusetts and Nebraska Ave. N.W., Washington, D. C.

15 Truck Refrigeration Drive Training Clinic, Hotel Adolphus, Dallas, Tex.

19-23 Efficient Terminal Management Short Course, University of Oklahoma, Norman, Okla.

19-23 Fleet Supervisor Course, University

of Alabama, University, Ala.

28-31 California Street and Highway Conference, Institute of Transportation and Traffic Engineering of University of California, Berkeley, Calif.

FEBRUARY 1959

4-May 20 Accident Prevention for Motor Vehicle Fleets, New York University, Div. of General Education Center for Safety Education, Washington Square, New York, N.Y.

9-13 Fleet Supervisor Course, University of Utah, Salt Lake City, Utah.

11 Effective Fleet Operation Course, Syracuse University, Syracuse, N. Y.

11 Truck Refrigeration Drive Training Clinic, Biltmore Hotel, Los Angeles, Calif.

19 Truck Refrigeration Drive Training Clinic, St. Francis Hotel, San Francisco, Calif.

23 Effective Fleet Operation Course, Northwestern University, Evanston, Ill.

MARCH 1959

2-6 Maintenance Course, Ontario Safety League, Toronto, Canada.

9-10 Fleet Supervisor Course, University of California, Los Angeles, Calif.

11 Truck Refrigeration Drive Training Clinic, Park Sheraton Hotel, New York, N. Y.

11-13 Maintenance Course, University of California, Los Angeles, Calif.

16-17 Fleet Supervisor Course, University of California, Berkeley, Calif.

18-20 Maintenance Course, University of California, Berkeley, Calif.

23-25 Maintenance Course, University of Washington, Seattle, Wash.

23-27 Fleet Supervisor Course, University of Oklahoma, Norman, Okla.

APRIL 1959

6-10 Fleet Supervisor Course, University of Washington, Seattle, Wash.

20-24 Trainers of Commercial Drivers Course, Ontario Safety League, Toronto, Canada.

27-May 1 Maintenance Course, Pennsylvania State University, University Park, Pa.

NEW AND BETTER!
JOB-DESIGNED TOOLS by KEN-TOOL

FLANGE TYPE REAR AXLE PULLER
For all standard wheel pullers. Delivers powerful blow to drive out the tightest shaft on late model cars.

NEW UNIVERSAL DRAIN WRENCH
7-way wrench, including TWO 5/16" hex for late-model Chrysler cars.

TOOL BATTERY KIT
B-26, Post cleaner—cable spreader and cleaner. B-207, chrome-nickel battery pliers. B-24 Forged terminal clamp puller. Separately or in plastic carrying pack.

KEN-TOOL MFG. CO.
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Lightest-Weight Bulk Body on the Road!

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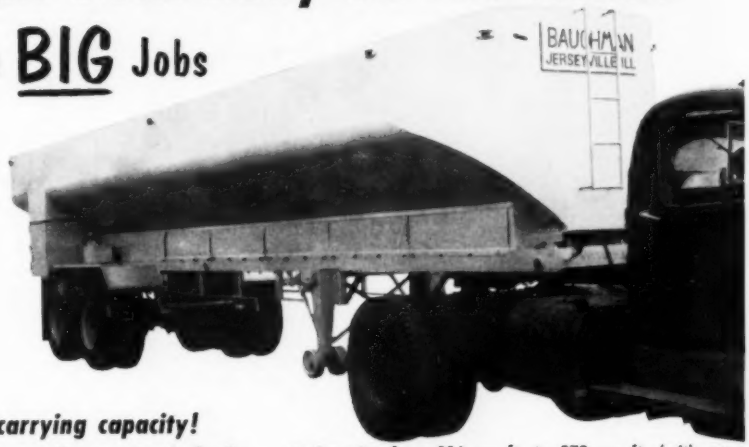
34′ STEEL BODY WEIGHS JUST 13,260 LBS. . . . a complete semi-trailer unit ready to roll. Same length Bulkmobile body fabricated in aluminum weighs only 8700 lbs. Other body lengths have proportionately same weights.



Lighter-weight body means greater carrying capacity!

Plus

- Choice of three drives — auxiliary engine hydraulic, mechanical or PTO hydraulic.
- Choice of two conveyors — drag chain or belt.
- Choice of four methods of rear discharge — belt conveyor, screw conveyor, belt-and-bucket elevator, or distributor.

WRITE today for illustrated Bulletin A-399.

No other BIG LOAD bulk body offers so much, yet weighs so little.

- Capacity from 336 cu. ft. to 972 cu. ft. (with even larger body sizes on special order).
- Discharge rate of 1 to 2 tons per minute, depending on material.
- Entire body completely compartmented at 4′ intervals, with trip door for each compartment that is controlled by driver from side of body.

Service and parts from 200 service branches. Better service through better engineering.

BAUGHMAN
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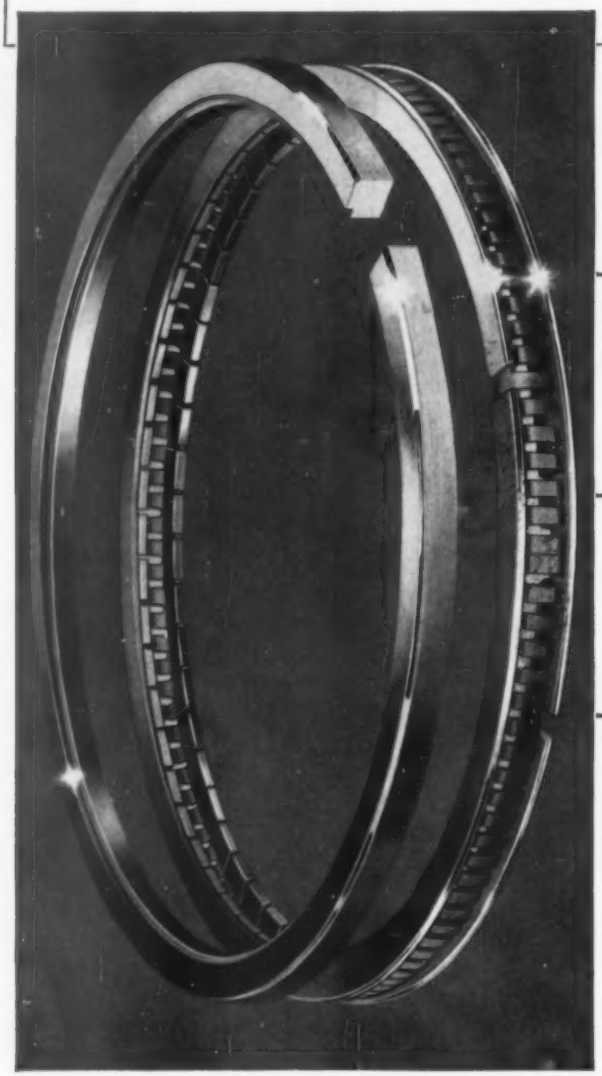
151 ARCH STREET • JERSEYVILLE, ILL.

Here are the main reasons why
the leading fleet operators say

PERFECT CIRCLE ALL THE WAY!



1 PISTON RING PERFORMANCE

Dependable installations.
Operating economy.

2 RELATED POWER SERVICE PRODUCTS

Simplify maintenance operations.
Economically extend worn engine life.

3 INFORMATION SERVICES

Doctor of Motors Clinics.
Specialized fleet technical assistance.

4 NEW PRODUCT LEADERSHIP

Major improvements in piston rings and power service products.

EXAMPLES:
Solid chrome plating on piston rings.
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PERFECT CIRCLE

PISTON RINGS AND POWER SERVICE PRODUCTS

Hagerstown, Indiana
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YOUR PERSONAL BUSINESS

Specially selected and edited for fleet owners from BUSINESS WEEK, a McGraw-Hill publication

FLEET

Your "rights" as a stockholder—rights predicated on the idea that when you buy even one share of stock in a company you become a part owner of the business—fall far shorter than you may imagine. Even determining what they are is a tricky job. This is because they arise from several sources—state law, the company's incorporation certificate and bylaws, Securities & Exchange Commission and stock exchange rules.

Most stockholders' interest in "rights" usually boils down to their right to attend and vote at stockholders' meetings and to obtain information about the company's operations. Your rights regarding stockholders' meetings, generally provide that you can:

- Demand an annual meeting if, for some reason, the company fails to hold one. And in certain situations demand a special meeting. But be prepared to back up this demand with a law suit.
- Demand to be notified in advance (usually 10 to 40 days).
- Demand that a quorum of stockholders be present or represented.
- Demand to speak (within reason) at any meeting. One warning though: You may have rights, but the board chairman has quite a bit of latitude on running the meeting and there are cases where stockholders' requests to speak were never recognized.
- If you can't attend a meeting, generally you have the right to name an agent, often an officer of the company, to act as your proxy and vote according to your instructions. Generally a firm is not legally bound to mail proxies; however, some exchanges (like NYSE) require most members to mail.

Have you the right to obtain company facts and figures? This is a much debated topic. Generally, you can demand to inspect the list of stockholders—but the law may attach strings. For instance, you may have to go to court to show that your purpose is entirely consistent with the company's welfare. Many concerns insist that you go through this procedure.

In some cases—for example, where there is evidence that financial statements are misleading—you may be able to obtain, also through court action, an audit of financial operations. Here, too, you get some added protection if a listed stock is involved. The NYSE, for example, requires that companies regularly publish audited financial statements.

Limits on stockholder rights are just as important to know about as the rights themselves. Some of the limitations are not too apparent.

Suppose the company gives information about its future plans—say to a bank to obtain a loan, or to an investment company. Have you, as a small shareholder, a right to demand the same disclosure? The answer is no—at least, you have no legal right (though many companies voluntarily make such disclosures as a matter of policy). In this area, the company's management usually has broad leeway.

Note, too, that as a general rule the company is under no legal obligation to mail reports and similar papers to you—though here again, the stock exchanges have special rules. (The NYSE requires listed companies to mail the annual report.)

What about the cover of protection afforded by the SEC? Here, too, there's a wide misconception among investors. Generally, no protection is afforded ex-

Continued on next page

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YOUR PERSONAL BUSINESS

Specially selected and edited for fleet owners from BUSINESS WEEK, a McGraw-Hill publication

Continued from preceding page

cept in the case of companies listed on an exchange—and even then, protection is limited. True, the SEC requires listed companies to disclose much information. But as a practical matter, the individual stockholder must carry the ball—through his voting rights, or in extreme cases, through the courts.

●

A rare variety of cheese makes a good hostess present. It shouldn't be hard to find. Good cheese specialty stores carry about 367 varieties. The only problem that might arise is what kind to buy. As a rule-of-thumb for picking the "best" variety do your own sampling.

Cheese varieties divide into these five general categories:

Hard cheeses, which are the best sellers; Cheddar and Swiss top the list. Excellent cheeses are available in both domestic and imported varieties.

Grating or seasoning cheeses, such as Italian Parmesan and Romano.

The blue molds—Italian Gorgonzola, French Roquefort and Bleu, Danish Blue, American and English Stilton. Used mainly as spreads with cocktails and dinner. Devoted followers also eat them for breakfast.

Semi-soft varieties, such as Danish Munster or French Pont-l'Eveque.

Soft, like German Limburger or English Dorset. Both soft and semi-soft varieties make excellent spreads and after-dinner cheeses.

Gourmets buy nothing but natural cheese—made from whole milk (of cows, sheep, goats, buffalo and other animals) with nothing removed or added except the microorganisms that give special flavor.

Pasteurized cheese is something else. The process removes most of the bacteria that are essential for successful ripening. Processed cheese is simply watered-down natural cheese, blended with such things as skim milk, water, spices and such.

●

Skiing is by no means a sport solely for the young. All ages can enjoy it—and still return safe and sound to the office on Monday. But one of the prerequisites for skiing is body-fitness. This does not mean that you have to be the rugged outdoor type. However, if you're in any doubt about the risk involved in your case, your physician can advise you. While some in their 70's have taken up the sport, all skiers are cautioned about possible heart strain. One factor is oxygen reduction at high altitudes, causing the heart to work harder.

It helps if you do a little physical conditioning in advance to increase your stamina. This can easily be done at home. Walking, running and skipping rope for a 15-minute or half-hour period each day probably will do the trick. Walking with one foot placed directly in front of the other will assist you in developing balance. This may sound foolish, but it pays off on the slopes.

If you can possibly cram it in, attendance at a general calisthenics class also is a good idea. Such classes are often conducted by ski clubs, which are active in most cities. For information on clubs in your area, write to the National Ski Assn., 1130-16th St., Denver, Colo.

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"We like the cleanliness and economy of operation Philgas gives us!"

Robert A. Stover, *Division Manager,*
Standard Industries, Inc.
Tulsa, Oklahoma

Bruce Allison,
Plant Superintendent

"We've upgraded power, lowered maintenance cost with Philgas!"

● A breakdown in the Standard Industries truck fleet can be costly. That is one reason the Tulsa division of this progressive concrete mix company chose clean-burning Philgas* to power 22 of its ready-mix trucks.

"Philgas eliminates oil dilution and engine fouling – two things that can lead to expensive down-time," said Bruce Allison, plant superintendent. "A loaded truck weighs 48,000 pounds, yet we estimate that we're getting 10% more power through the use of Philgas. This means a big difference in performance over a year's time. In the two years that we've used Philgas, we have had no engine maintenance cost."

Robert A. Stover, division manager, said: "From an overall performance and economy standpoint, we are completely satisfied with Philgas. We plan to convert our entire fleet to Philgas."

*Philgas is the Phillips Petroleum Company trademark for its high quality LP-Gas (propane, butane).

Phillips 66 Philgas
THE ALL-PURPOSE FUEL

PHILLIPS PETROLEUM COMPANY

Sales Department, Bartlesville, Oklahoma

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HOUSTON, TEX.—*6910 Fannin St.*
INDIANAPOLIS, IND.—*3839 Meadows Drive*
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OMAHA, NEB.—*3212 Dodge Street*
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SALT LAKE CITY, UTAH—*68 South Main*
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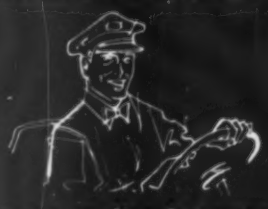
HUNTER HEATERS



for gas or diesel tractors, delivery bodies, special purpose equipment

- gasoline or LP-gas combustion heaters
- shirt-sleeve warmth at low cost, at all times — on or off the road
- safe, dependable, conform to ICC regulations
- operate independent of vehicle engine
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- economical to operate, use minimum of fuel
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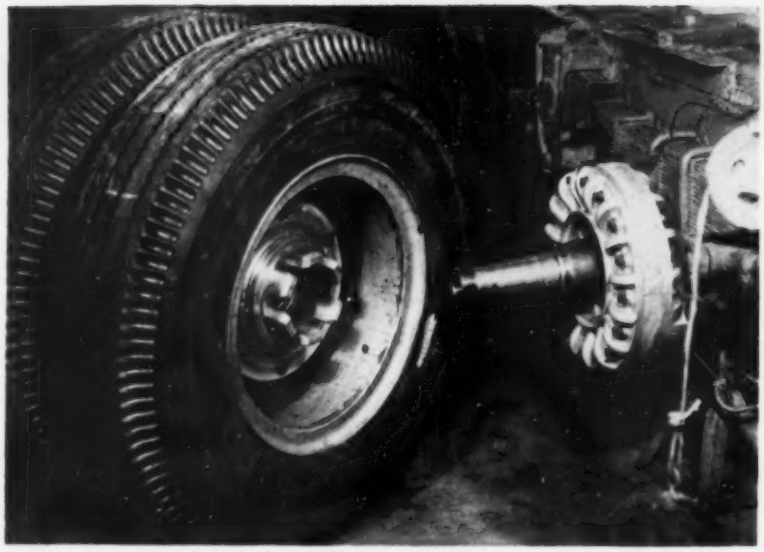
Write for descriptive literature and complete specifications

HUNTER MANUFACTURING CO. 30525 AURORA RD. SOLON, OHIO

HEATING AND REFRIGERATION SYSTEMS



NEW LIQUID-COOLED BRAKE ASSEMBLY is adaptable to conventional wheels. Interlocking driver replaces drum and is mounted on the wheel hub.

Liquid-Cooled Disk Brakes— Here's Latest Development

DESIGNED by Wagner Electric Co., St. Louis, Mo., this new liquid-cooled disk-brake offers some substantial advantages to fleet owners. Although it is only 15 in. in diameter, fade tests made with 60,000 lb gcw tractor-trailer in accordance with SAE procedures show that it far our-performs conventional type air brakes. Twenty snubs made from 40 to 20 mph in one-minute cycles showed that temperature stabilized after the fourth snub and remained constant thereafter. No recovery time was required because brakes cooled to temperature of coolant as soon as brake application was released. Braking effort was kept constant during the test.

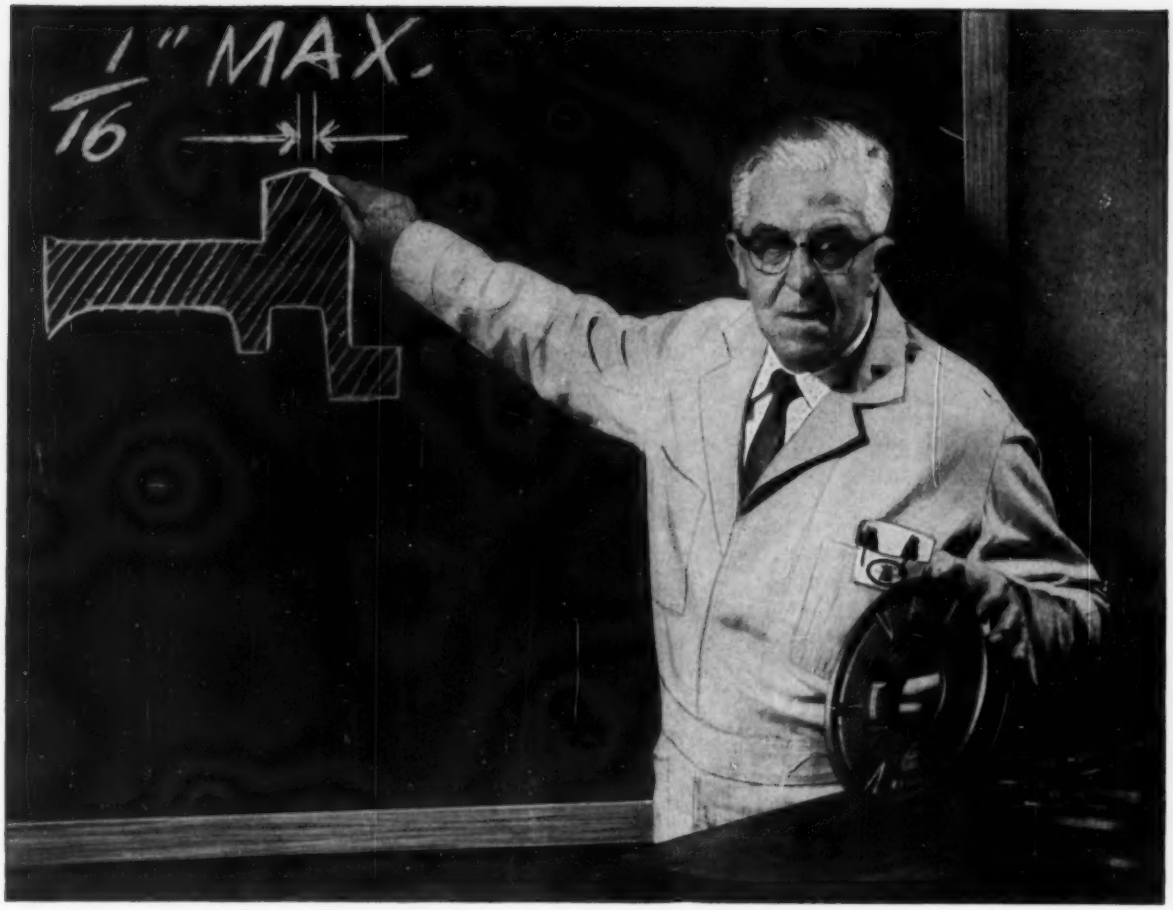
Lower unsprung weight is another feature as the new unit weighs as much as 124 lb per axle less than conventional brakes with accessories. Maintenance is greatly simplified also since it is claimed friction material and copper friction plates can be renewed on a unit replacement basis in about 15 minutes, without disturbing the hydraulic system in any way whatsoever.

Unit can function as retarder or service brake . . .

. . . and choice is always under driver control by means of selector valve located in cab.

The brake inclosure is of cast aluminum and consists of an outer and inner housing. The lining disk is steel with lining bonded to both faces. Inner periphery of disk is slotted to mate with teeth of a driver mounted in wheel. Copper friction plates are riveted to outer housing and also to the inner copper carrier and sealed with "O" rings. Automatic adjuster compensates for lining wear.

Another important point: friction surfaces are protected from road splash and dirt and have no running seals. The coolant used in the brake is the same as that used in the engine cooling system and is circulated through the brakes and back to the radiator by a belt-driven positive displacement pump. Storage for additional coolant is provided by an auxiliary tank. This tank permits storage of heat energy during braking, to be liberated during normal running cycle of the operation.



This field-rebuilt clutch "died" too soon—

***Here's why:* A field rebuilder re-used the adjusting plate with worn-down fulcrum edges.**

The limit of wear permissible is reached when the *width* of the fulcrum edge hits 1/16". Beyond this point, the depth of metal beneath the edge is insufficient to retain the proper clutch lever ratio.

The result is lowered torque capacity, chatter, slipping, overheating of the reassembled clutch . . . and—in this case—*a loss of 30,000 miles in clutch life!*

For Lipe Dependability . . . Go to Lipe!

For a clutch built to Lipe specifications and under Lipe quality controls . . . a clutch produced by factory-trained workmen on factory production machinery . . . balanced with costly electronic devices . . . and inspected with Lipe close-tolerance testing facilities . . . go to Lipe.

All Parts in Lipe Clutches Conform to High Precision Standards

From our experience in supplying clutches to 54 makers of heavy duty equipment comes the know-how that goes into the manufacture of the Lipe Guaranteed Clutch. That is why we can unconditionally guarantee our product to be unequalled by field rebuilders.

Look for this Factory Seal when you take delivery on a Lipe Guaranteed Clutch for replacement service. It is your assurance of long, trouble-free life and *big* long-run savings!

SEND FOR OUR FREE "Clutch Facts" Booklet

Tells you how to get more life from your heavy-duty clutches and what to look for when replacing them.

Lipe-ROLLWAY
CORPORATION
SYRACUSE 1, N. Y.

A question (and answer) from Raybestos . . .

BRAKE DRUM REPLACEMENT COSTS PLAGUING YOU?

INFERIOR BRAKE BLOCKS MAY WELL BE THE CULPRIT!

As you know, boosting profits depends largely on cutting costs. One good way to do both is to make certain when you buy brake blocks that you get the kind which will not only resist fade and wear well, but also not damage brake drums.

Raybestos Brake Blocks—custom tailored in the right combinations and thoroughly proving ground tested—sharply reduce heat checking and scored drums, and thus eliminate unnecessary, and mighty expensive, brake drum replacement. Regardless of your operation—local stop-and-go, intercity service, hauling over mountains—you'll want to insist on Raybestos Brake Blocks.

And keep in mind, too, the other fine Raybestos products that can mean so much to the profitable operation of your fleet . . .

Woven Molded Brake Blocks

Raylok and Ray-Metl Clutch Facings

PGT Heavy Duty Truck Sets

V-Drive and Automatic Transmission Plates

Heavy Duty Brake Fluid

RELINE WITH

Raybestos

AMERICA'S BIGGEST SELLING FRICTION MATERIAL

RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.

RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Brake Fluid • Clutch Facings • Industrial Rubber Mechanical Packings • Asbestos Textiles • Engineered Plastics • Sintered Metal Products • Rubber Covered Equipment • Laundry Pads and Covers • Abrasive and Diamond Wheels • Industrial Adhesives • Bowling Balls

TROPICAIRE
Coldmobile

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Since the first TropicAire *diesel-powered* mobile refrigeration unit came off the assembly line several years ago, there have been many significant improvements developed by TropicAire-Coldmobile engineers. Changes in design and structure, thousands of hours of laboratory and field testing plus other developmental factors have evolved diesel-powered transport refrigeration equipment that has no peer. The 1959 TropicAire-Coldmobile models are first in every way: in experienced engineering, power, refrigeration capacity, dependability, stability, ruggedness, operational economy, and in standardization of components to assure quick, easy servicing.

For the *best* in economical diesel-powered transport refrigeration, equip *your* fleet with TropicAire-Coldmobile.* Write or call for full, detailed information.

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Installation of Aeroquip 1503 Hose Lines on this air tank to compressor application is being made on all tractors operated by Tose, Inc.

"Aeroquip Hose Lines Install Faster Than Rigid Tubing, Cut Overall Shop Cost"

Reports A. F. Smith, Purchasing Agent, Tose, Inc., Bridgeport, Pa.

Speedy radio-controlled trucking service between the metropolitan areas of Philadelphia and New York is offered by Tose, Inc., Bridgeport, Pa., trucking firm. To keep their 300-unit fleet on the move, Tose maintenance men use Aeroquip Hose Lines for quick replacement of fuel, lube oil and air lines on trucks and tractors.

Before using Aeroquip, frequent road breakdowns were encountered due to failure of rigid tubing. Compressor feed lines, in particular, were damaged by vibration stress which broke the elbows off at tank connections. By replacing compressor feed lines with Aeroquip 1503-12 Medium Pressure Hose, breakdowns were completely eliminated. So far, 41 vehicles have been converted to the Aeroquip application.

Join the cost-saving fleets that standardize on Aeroquip Hose and Reusable Fittings for all replacement lines. Call the Aeroquip Distributor listed in your Yellow Page Phone Book, or write us.

Low pressure fuel and lube oil lines on this engine are made of Aeroquip 1525 Hose and *SOCKETLESS* Fittings. They assemble easily by hand, install quickly, withstand engine vibration and shock.

SOCKETLESS is an Aeroquip Trademark

This Tose, Inc. mechanic can assemble Aeroquip *SOCKETLESS* Fittings and Hose quickly to make low-cost engine fuel and lube oil lines. Just push the hose on the patented* *SOCKETLESS* Fitting . . . it stays on.

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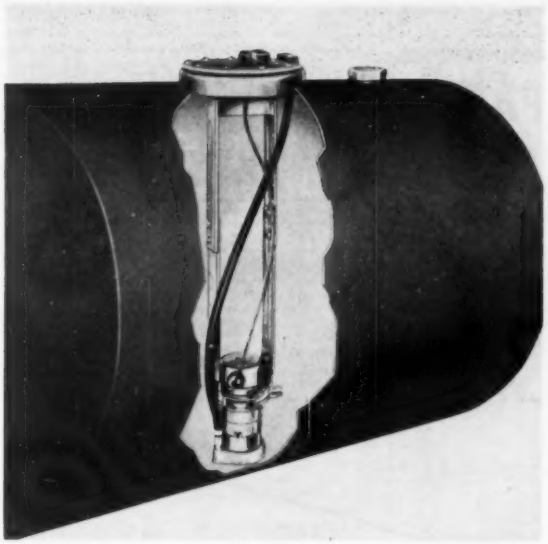
**SOCKETLESS* Fittings are covered by U. S. Patent Number 2,805,088 and Corresponding Foreign Patents and Patent Applications

Here's Tokheim's New Fuel Pump



IN-TANK FUEL PUMP is suspended from the top of the fuel tank by hanger, which is adjustable to different dimensions. The pump itself is claimed to maintain constant pressure and full fuel flow under all driving conditions.

A NEW MODEL in-tank electric fuel pump is presently being introduced by the Tokheim Corp., Fort Wayne, Ind. Developed by Tokheim for motor trucks, the new model is set for after-market distribution, with delivery immediately available from current production.

Basically, the fuel pump "pushes" fuel to the carburetor from the bottom of the fuel tank and does not depend on suction, as conventional, mechanical and electrical pumps do. It operates on the same basic principle as the Tokheim in-tank pump originally developed and introduced for the first time as standard equipment by the Ford Motor Co. on its 1958 heavy-duty trucks. (See FO, April '58, p 55-58).

When using this particular in-tank pump, the driver starts fuel flowing before the truck engine actually starts, either by dashboard primer switch—or through magnetic relay when touching the starter button. The company claims, therefore, that the common problems of cold starts, high altitudes and engine starvation should for the most part be eliminated.

The Tokheim Corp. reports that an important safety feature of the pump is its special oil-pressure switch which automatically stops the pump if the engine stalls. The pump is listed by Underwriters' Laboratories. It comes in a choice of two installation kits.

A 30 SECOND TEST

		Yes	No	Don't Know
1.	Do the switches and electrical connectors on your vehicle have a low voltage drop to supply proper lamp illumination?	☐	☐	☐
2.	Were the switches on your vehicle built to S.A.E. and National Association of Boat and Engine Manufacturers' standards?	☐	☐	☐
3.	Are the switches you propose to buy guaranteed and individually tested?	☐	☐	☐
4.	Are you judging the product for its true value rather than by its outside appearance and packaging?	☐	☐	☐

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BEATRICE FOODS CO. delivers Meadow Gold Ice Cream in "Dulux"-finished trucks which serve as traveling billboards that sell product, cleanliness . . . even appetite appeal. And "Dulux" *stays* beautiful in rugged daily service.

UNITED VAN LINES' recently developed new look won a 1958 color and design award. "The quality of Du Pont 'Dulux'. . . its brilliant colors and easy manageability . . . did a terrific job for us," says the company.

How can you keep a fleet bright and attractive when it's continually exposed to harsh sunlight, rain and dew —the worst enemies of paint. "Choose a finish with built-in weather resistance," say leading fleet operators.

And to qualify Du Pont "Dulux" Enamel as the *standard* of durability, punishing tests are made 365 days a year. All the weather conditions, hard knocks and vibration of transcontinental service are simulated in tests that maintain the great flexibility of special "Dulux" resins to guard against cracking and chipping . . . maintain the great resistance of "Dulux" to fading and chalking.

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TRUE ECONOMY. When you put Du Pont "Dulux" on your fleet, you take advantage of the continuing experience of the world's greatest paint laboratory. That's why your paint shop will find "Dulux" easy-working, reliable, economical . . . why "Dulux" stays *out* of the paint shop longer . . . why it snaps back bright and beautiful at every washdown. So remember, specify Du Pont "Dulux" Enamel.

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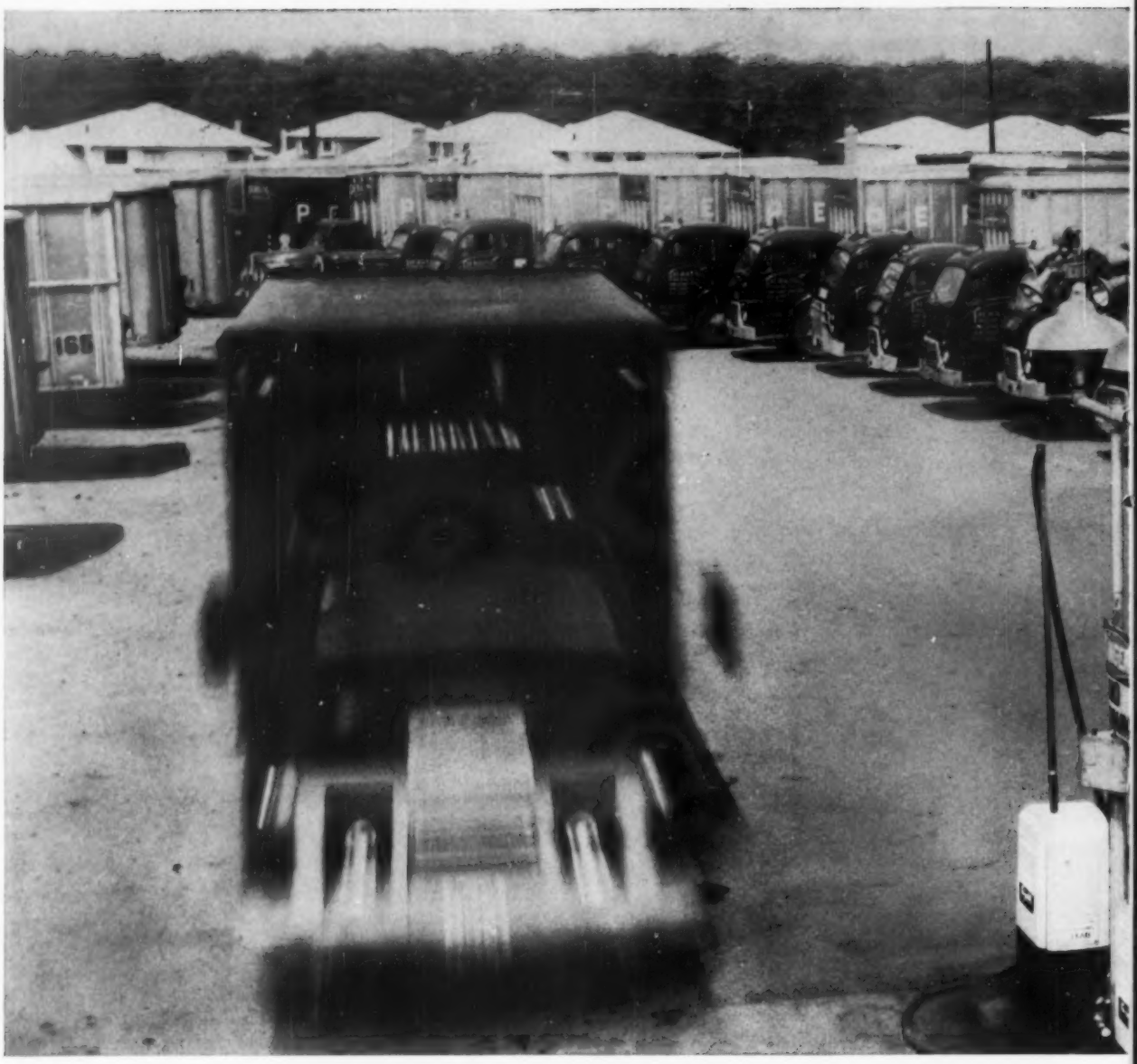

For 19 years, in world's heaviest traffic, Perkins' truck engines

GULF MAKES THINGS

"Since this is our 50th anniversary in the business, I think it's a good time to review our fleet performance over the years," says Robert W. Perkins, President of Perkins Trucking Company, Inc., Maspeth, New York.

Mr. Perkins' report, which follows, offers plenty of proof that Gulf makes things run better. For the last 19 years all his trucks have been powered by Good Gulf Gasoline and lubricated with Gulf motor oils and greases.

"For one thing, our operation is unusual for a fleet of more than 200 big units," says Mr. Perkins. "We are basically a stop-and-go delivery organization—operating to, from and through New York City where the traffic is heavier than in any other place in the world.

"We average 560,000 deliveries a year, totalling 150,000 tons. With the high number of stops per mile of travel, engine maintenance is particularly important to us—and it hinges on good fuels and lubricants.

"We need a gasoline that burns clean. We need an oil with a good lubricating base and the proper detergent additives to prevent build-up of sludge. That's the kind of gas and oil we've been getting from Gulf for over 19 years—plus excellent technical service that has helped

Proof in the pistons. John Schleier, mechanical foreman, examines a piston from one of the engines of Perkins Trucking Company. Rings are free, and there is very little evidence of wear after 100,000 stop-and-go miles—using Good Gulf Gasoline and Gulflube HD motor oil.

Mr. Thomas Perkins (left) and Mr. Richard Perkins (center) in charge of operations, safety and maintenance for Perkins Trucking Company, discuss fleet operations with Mr. M. A. Rafferty, Gulf Sales Engineer.

Off and running—on Good Gulf Gasoline. Shown here, at their transfer terminal in Hicksville, Long Island, are some of the more than 200 units in the fleet of Perkins Trucking Company of Maspeth, New York. The firm uses over 30,000 gallons of Good Gulf Gasoline per month.

run clean on Good Gulf Gasoline...

RUN BETTER!

us keep our maintenance costs down.

"Before overhauls are required, we get about 100,000 stop-and-go miles from our engines. When heads are pulled the engines are clean. There is very little evidence of wear. There is no sludge in the crankcases."

How about your fleet performance? Maybe you should double-check — and see how Gulf makes things run better with clean-burning Good Gulf Gasoline and clean-working Gulf motor oils. Just call your nearest Gulf office. Meanwhile write for our booklet "More for Your Money with Good Gulf Gasoline."

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FO 5259

Brown trailers save on hauling everything from potato chips to pig iron...

Operational Saving: $2.06 per hour

Kraft Foods has achieved dramatic savings in the cost of product distribution since switching to aluminum trailers. Each new aluminum refrigerated trailer operates for $2.06 less per hour. The lighter units carry more payload, have helped Kraft reduce their truck fleet by 120 units. Aluminum reflects heat, won't rust out from moisture.

Labor Saving: 4 man-hours per trip

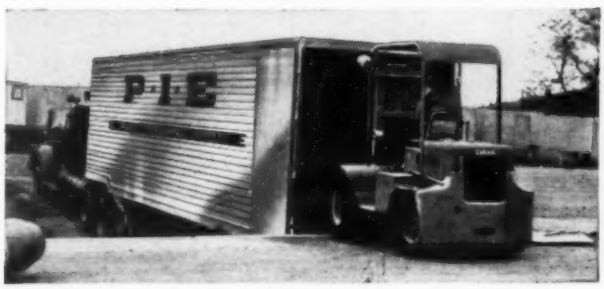
This unusual refrigerated trailer was built by Brown for a Minnesota meat hauler. Trolley rails in ceiling of trailer exactly match those inside widely-separated slaughter and packing plants. Workmen load and unload simply by pushing the hook-hung carcasses. Saving over lift-and-carry method: two man-hours loading, two man-hours unloading.

Price Saving: mass-produced custom models

The wide range of standard Brown trailer models can be modified to meet specific customer requirements. Example: a fleet recently delivered to an eastern operator had overhead rear doors because customer feels they are less susceptible to damage than hinged doors. Units also have sliding running gears.

Brown is a trademark of Clark Equipment Company

Brown TRAILERS division
CLARK EQUIPMENT



Weight Saving: 2,300 pounds per payload

Important features, such as 500 pounds lighter Cushionair suspension and aluminum liner, floor, sills and wheels, convert deadweight into payload in this 40-footer. Trailer is one of 265 purchased recently by western-based common carrier noted for efficiency of operations.

CLARK EQUIPMENT COMPANY

BROWN TRAILER DIVISION

Michigan City, Indiana

Latest Stock Market Fleet Price Listing

HERE'S AN EXPANDED LISTING of fleet stock prices that includes 49 truck and bus companies. Quotations are as of December 16, 1958, from Shields & Co., 44 Wall St., New York, N. Y. The columns of figures, reading left to right, show total dividends paid in 1958, current bid and asked prices, highest and lowest prices quoted for the stock in 1958. Abbreviations in parentheses after each company name indicate where that stock is traded: OTC (over the counter), NY (New York), Phil (Philadelphia), Balt (Baltimore), Bost (Boston), Cinc (Cincinnati), Amer (American), MidWest (Mid-West), PacCoast (Pacific Coast).

	Div.	Bid	Asked	High	Low
AssocTransp (OTC)	—	4⅛	4¾	5	2¾
AssocTruckLi (Midwest)	.70	12	12¾	—	—
BaltTrans (PhilaBalt)	.25	8½	—	9	5¼
CentWisMotTransp (OTC)	.30	7¾	8½	—	—
CincTrans (Cinc)	.30	5	5⅜	6	4⅜
CityCoachLi (OTC)	—	8¼	—	—	—
ConsolFrtwys (OTC)	.80	17⅜	18⅝	19	12⅝
ContTranspLi (OTC)	.70	9¼	10¼	10¼	7½
CooperJar (Amer)	.50	12⅝	13⅛	12½	6⅝
DallasTrans (OTC)	.35	7⅜	7¾	7¼	5
DenverChi (OTC)	.75	19¾	20¾	22	17¼
Denver-Tramway (OTC)	—	2	3	—	—
Det&CanadaTun (OTC)	1.00	15¾	16¼	17	17¼
EastMassStRwy (Bost)	—	¾	1¼	1⅞	½
FifthAvCoach (N.Y.)	.50	19¼	19⅜	24¼	16⅞
FtWorthTrans (OTC)	.40	5⅜	—	—	—
GaryRwys (Midwest)	.20	2⅞	3¼	—	—
Galveston-Houston (OTC)	1.00	8¾	10	10	6½
Greyhound (N.Y.)	1.00	18½	18¾	17⅞	14⅜
IndianapolisTrans (OTC)	—	14½	—	—	—
				11¾*	7⅛*
InterstaMotFrt (OTC)	1.05	19‡	21‡	18¼‡	14¼‡
InterstaMotLi (OTC)	.60	15⅝	16	—	—
KansasCityPS (OTC)	—	5	5½	4⅞	2⅛
LosAngTrans (OTC)	.35	22	—	22⅜	17
McLeanTrucking (OTC)	.50	8⅛	8⅜	9¾	7⅛
MemphisTransit (OTC)	.15	2⅝	3	2⅝	2
NatCityLi (N.Y.)	2.00	29½	30¼	29¼	19¼
NiagFrontTrans (OTC)	.60	8½	9	9	6⅝
OverniteTransp (OTC)	.85	16⅛	16½	—	—
PIE (OTC)	.85	13⅛	13½	13⅞	9¾
PhilaTransp (PhilaBalt)	—	8½	—	8¼	4⅝
PittRwys (Amer)	.25	10⅞	11	11	5¼
PortlandTrans (OTC)	—	5	5⅜	—	—
RwyEquip&Rlty (PacCoast)	.50	6½	7	7¼	5¼
RoadwayExp (OTC)	.70	10⅞	11¾	11½	7⅞
RochesterTrans (OTC)	.40	4⅞	5⅜	4⅞	4
RyderSyst (OTC)	1.05	40	42¾	38¾	13
SanAntonioTrans (OTC)	.60	11	12	—	—
St.LouisPS (Midwest)	1.00	9⅞	10	10⅞	6¾
SyracuseTrans (OTC)	2.00	18	19½	18½	17
TransconFrtLi (OTC)	—	12	14	—	—
TransconBusSys (OTC)	—	1¾	2	—	—
Twin-CityRapTrans (N.Y.)	1.57½	11⅞	12⅛	15⅜	10⅛
USFrtLi (N.Y.)	2.00**	55¾	56	50½	21½
USTruckLi (OTC)	1.15	17¾	19⅜	20½	15
UnitedTransit (OTC)	.60	5⅛	5⅜	5⅝	4½
UticaTrans (OTC)	—	4¼	4¾	—	—
WatsonBrosTransp (OTC)	.52	6⅛	6¾	7¼	5¼
WestTownsBus (OTC)	—	2	2¾	—	—

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John Hess Joins Fleet Owner . . .

. . . on the New York staff. Hess' previous editorial experience has been on *Industrial Distribution* and *Aviation Week*, both McGraw-Hill publications. He will serve on FLEET OWNER as an assistant editor.

In 1953, Hess received a B.A. in Economics at the University of Iowa, and shortly thereafter joined the U.S. Air Force as an officer. While at the University, Hess also played quarterback on the football team and shortstop on the baseball team.

JOHN HESS

While in the Air Force he worked as a supply and information officer in Alaska. With the 71st Rescue squadron, Hess was responsible for aircraft supply in addition to reporting the many rescue missions conducted by his squadron in the bleak northern country.

Returning to civilian life he continued his education once more at Iowa. While preparing for his Master's degree, which he received in February, 1958, he taught technical and business writing at the University. In his teaching duties he worked closely with engineers, editing technical information for submission to the Engineering College monthly publication. Hess is married and the father of three daughters, aged five, three, and two.

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ACROSS THE EDITOR'S DESK

IN DECEMBER, 1956, on the editorial page of this magazine, we said: "Are the minimum construction standards proposed in the new federal highway bill adequate? We don't think so . . . if highways are built to present-day standards, we're saying in effect: 'We don't think there need be any change in size of trucks, tractors, and trailers. They're economically at the right size now.' "

We went on to point out that it would be extremely detrimental to the industry to have a limit put on the size and weight of vehicles—because, in the future, we may find it much more economical to run larger vehicles. But, if highways are built to today's specifications, it will be impossible to run these vehicles.

We've mentioned this point over and over again editorially but up until late October, 1958, no action had been taken. (In the meantime, of course, 3679 miles of highway are already under construction as of October 31, 1958.)

Now, at last, the National Highway Users Conference has issued a statement calling for the Bureau of Public Roads and the American Association of State Highway Officials to study this point. We'll keep you posted on the action—but suggest you investigate the problem yourself and lend whatever assistance you can.

■

The influx of the foreign car into the U.S. market (however small you wish to consider it) is bringing to a head a problem that every businessman is going to have to consider whether he wants to or not: foreign competition.

Here's an example: Barbed wire, manufactured in Dusseldorf, Germany, and shipped to Cleveland, Ohio costs the jobber $40 less a ton than wire manufactured in Cleveland. And this is not an isolated case. With the modern plants in existence and being built in foreign countries and a lower labor cost, the problem is going to become greater.

What can we do about it? Only two things: First, do everything in our power to maintain our technological advantage over foreign producers. This means that management has to provide labor with the tools to do the job. Second, eliminate waste wages. Here's where the burden falls on labor, on the American workman himself. He has to accept the fact that he's paying the price for feather-bedding—that increases in his wages must also mean increases in production. Tough to do? Sure, but if it isn't done, many jobs are going to slowly disappear and higher wages for workers will cease to have any meaning.

■

Has poor handwriting ever cost your company money? If it hasn't, you've been very lucky. The Handwriting Foundation says that poor handwriting costs U.S. business and industry hundreds of millions of dollars each year. Here are a few of the examples they cite:

A sloppy figure on an order for a fuel oil delivery caused the driver to dump (through an old, disconnected intake pipe) 385 gallons of fuel oil into the recreation room of a gas-heated home.

In a typical year, a Detroit department store found that it was having to hold up 20,000 undecipherable sales slips representing more than $165,000 in purchases.

In one middlewest state, the Bell Telephone Co. found poor handwriting cost them $50,000 a year because they didn't know who was to be charged for the telephone calls.

How's the handwriting in your company?

■

We're very pleased that many of FLEET OWNER's 1958 Maintenance Efficiency Award Winners are using the special M.E. decals and pins. The decals give the winners a chance for excellent publicity. And the pins are a tangible recognition to the shop men who won the award. Too often companies play up safe drivers and forget the man in the shop who keeps the vehicles safe.

Caswell Speare

Editor

for safe cross-country towing with minimum investment

THE CEMCO FIFTH WHEEL CRANE

Now you can afford to equip each important terminal with a detachable unit which can be used to:

- Bring in disabled tractors
- "Dead-head" tractors
- Raise dropped trailers
- Hoist around the shop

After more than five years successful performance there are now hundreds of trucking companies which find these Cemco Fifth Wheel Cranes almost indispensable to economical operation.

here's how it works:

The Cemco Fifth Wheel Crane is suspended in an "A" frame at the terminal. In comes the call for help. Any available tractor is backed under the crane, U-bolts are engaged at two points on the rear cross member of chassis and you're ready to go. Takes only a few minutes. The kingpin plate is adjustable to accommodate different makes of tractors: Lifting height is from 32" to 36" and capacity is 17,500 lbs. -- ample to lift any popular make heavy-duty tractor, or, the average trailer. (Choice of electric starter, motor-driven hydraulic pump, or, hand hydraulic pump).

one-man operated

No need to send out two men for a breakdown -- one can easily handle the rigging. After load is raised a 2", over-the-road safety bar takes the weight off the hydraulic system. Side guides keep the load from swaying and a special trunnion-swivel joint handles the turns and uneven travel.

For the low cost of this Cemco Fifth Wheel Crane you can't afford to be without the service it makes possible! Send for details and prices.

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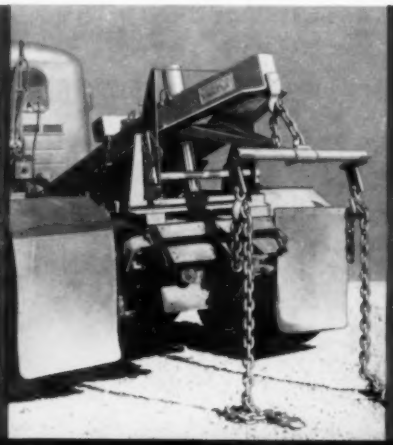
split-shaft power take-off



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Watch the exhaust pipe opening. Here's one tip-off to the economy and efficiency of your diesel truck's performance. If you spot thick, bluish exhaust smoke, your truck is wasting oil. It's not delivering the performance you pay for.

Oil economy is just one reason fleet owners insist on Sealed Power Chrome-Cyclan Piston Rings for all their diesel jobs. In case after case large fleet operators report these rings show 70% less wear than cast iron rings. Time after time their records show how Chrome-Cyclan rings retain tension under high operating temperatures.

Prove to yourself how much penny-pinching power is packed into these rings. Next time try Sealed Power Chrome-Cyclan Piston Rings.

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